

A Marine Resource Management Internship Report

Internship served with:

THE WIDER CARIBBEAN SEA TURTLE RECOVERY
TEAM AND CONSERVATION NETWORK
OFFICE OF THE DIRECTOR GENERAL

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by

Ed Brunson

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PREFACE

In the Spring, 1985 issue of OCEANUS Magazine there is an article written by Dr. Nat Fraser about the Wider Caribbean Sea Turtle Recovery Team and Conservation Network (WIDECAST). I found the article extremely interesting, so much so that I called Dr. Fraser and asked him how I could find out more about the project. He put me in touch with Dr. James Richardson, the Director General of WIDECAST. Through this contact with Dr. Richardson an internship was arranged working in the Director General's office at the Institute of Ecology on the campus of the University of Georgia at Athens. The internship ran from the beginning of February through June, a period of five months.

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I. INTRODUCTION

At the May 19, 1982 meeting of the Governing Council of the United Nations Environment Program, Kenya President Daniel Arap Moi summarized a growing international feeling that there is a need for non-governmental organizations (NGOs) to get more involved in international conservation efforts with the following statement:

"The issue before us today is not that of human well-being, but of human survival,... havoc has been spread across the whole spectrum of the natural environment. There is no doubt whatsoever that continuation of the present trends will lead to total collapse... The key factor in human salvation now can only be political will...Global efforts must be fully mobilized to confront the possibility of total biological disaster. A whole new concept of obligation and duty needs to be blueprinted on a international scale. It is also important to increase public and political awareness of the importance of the environment through information, education and training. Responsible individual behavior and involvement are essential in furthering the cause of the environment. Non-governmental organizations have a particularly important

and often inspirational role to play in this sphere."

The Wider Caribbean Sea Turtle Recovery Team and Conservation Network (WIDECAST) is one organization attempting to meet this need. WIDECAST personnel from throughout the Wider Caribbean¹ are preparing sea turtle recovery plans for 39 government regions that will eventually become official policy in the region. WIDECAST is unique in that it is a totally volunteer international effort, and could serve as a model for future efforts in other parts of the world.

This report is divided into three sections, the first of which describes WIDECAST, its origin, history, goals, how it functions and its future. Section two is an account of my internship. Section three is an evaluation of WIDECAST and the internship experience.

¹ The Wider Caribbean region includes the Gulf of Mexico, the Caribbean Sea, and those parts of the Western Atlantic within 200 nautical miles of the Bahamas and Florida (south of 30 degrees north) down to the northern border of Brazil.

II. WIDECAST

A. ORIGIN OF WIDECAST

At the meeting of Non-governmental Wider Caribbean Conservation Organizations on Living Resources Conservation for Sustainable Development in the Wider Caribbean, held August 26-29, 1981 in Santo Domingo, Dominican Republic, Mr. Milton Kaufmann of Monitor International submitted the recommendation that a NGO produce a Wider Caribbean Sea Turtle Recovery Plan. The recommendation was approved, with WIDECAST (Wider Caribbean Sea Turtle Recovery Team and Conservation Network) being the resultant NGO. The Santo Domingo meeting is essentially when WIDECAST's "charter" was obtained.(Appendix 1)

On January 24-26, 1984, at Turabo University in Caguas, Puerto Rico, an international group of non-governmental sea turtle scientists and experts convened at what was to be the first WIDECAST organizational meeting. The core group at that meeting is now the WIDECAST Team (figure 1). The Team, which is ultimately responsible for the actions taken by WIDECAST, is supported in their actions by a volunteer network which consists of other NGOs, scientists, conservationists, experts, government officials, government agencies and intergovernmental bodies from throughout the region. (Appendix 2)

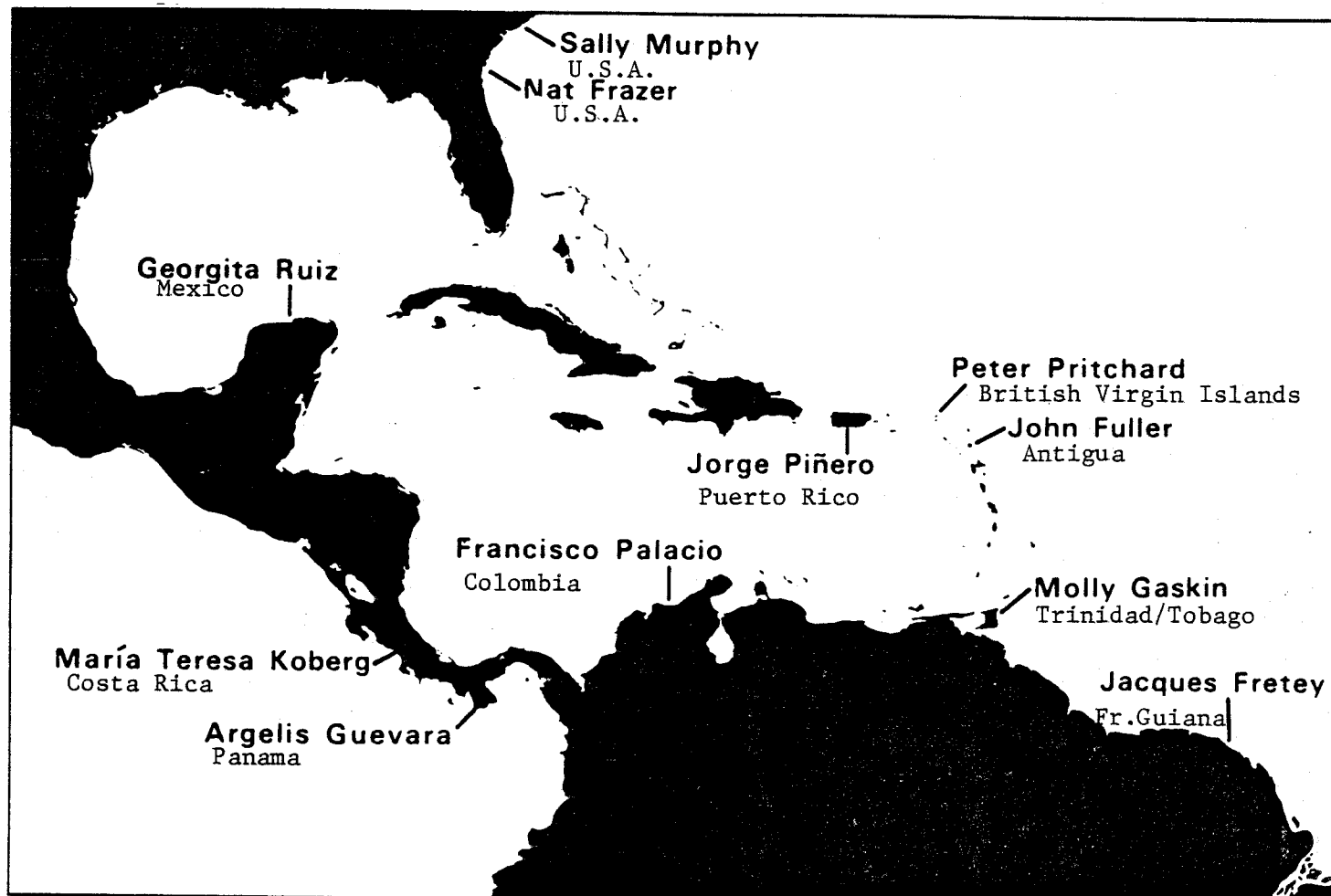


Figure 1. The WIDECAST Team.

B. GOALS OF WIDECAST

WIDECAST is a project designed to demonstrate what can be achieved in international conservation through cooperative group action between governments, NGOs, and intergovernmental bodies. While sea turtle conservation is the initial target of WIDECAST, it is also a pilot project to develop grass roots conservation advocacy that will motivate and support respective Wider Caribbean government's initiatives in resource management. Thus, while at times it may seem that the sea turtles are being lost in a maze of acronyms, agreements, and bureaucracy, this project could potentially have far reaching effects, serving as a model for similiar efforts worldwide.

The WIDECAST project has both short and long range goals. The primary short term goal is to effectively change sea turtle conservation practices in the Wider Caribbean. WIDECAST plans to do this by:

- 1) Preparing the Wider Caribbean Sea Turtle Recovery Action Plan called for at the 1981 meeting in Santo Domingo. This Wider Caribbean Plan will have attached 39 annexes. Each annex will, in effect, be a comprehensive recovery plan for one of the 39 government regions (Figure 2) in the Wider Caribbean. While most government regions consist of a single country, some do include more than one country. Thirty-nine is an arbitrary number arrived at after considering factors such as language, culture, and political organization.



Figure 2. The 39 WIDECAST Government Regions.

2) Implementing these sea turtle recovery plans through one or both of two official channels. First, under a pending contract with UNEP, the sea turtle recovery action plans being written by the Team are to be used as the sea turtle section of the Action Plan for the Caribbean Environment Program (APCEP).(Appendix 3) Also, the WIDECAST Team plans to submit the action plans to the first meeting of the contracting parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention).(Appendix 4) The Team's plans will be in the form of a sea turtle management annex to a draft Cartagena Convention Protocol on Specially Protected Areas and Wildlife as identified by resolution #3 of the Convention. Mr. Kaufmann successfully negotiated at the convention for the adoption of resolution #3, so, in effect he was able to lay the groundwork for the recovery plans written by the Team to be accepted policy by all contracting parties to the convention.

Long range goals include:

- 1) Continuing as an active citizen based international conservation organization in the Wider Caribbean, working in a similiar manner on other initiatives.
- 2) Serving as a model for future projects in other parts of the world. Areas of particular interest are UNEP's other regional seas areas.

C. ORGANIZATION

Since that first meeting in 1984, WIDECAST has developed as an organization. While the Team and Network are certainly central to WIDECAST, there is much more to the organization. Figure 3 helps explain WIDECAST's relatively complex system of associations and affiliations. In actuality there is considerable collaboration between the units depicted. This diagram is simply a way to explain WIDECAST's internal structure.

1) The WIDECAST Team

As mentioned earlier, the Team decides what actions will be taken by WIDECAST. There are eleven Team members from throughout the region, with a chair elected for one year periods. The current chairman is Mr. John Fuller from Antigua. As can be seen from figure 3, the team receives input from a multitude of sources as it proceeds with the administration of WIDECAST.

2) Individual Team members

Each team member is responsible for one or more of the 39 government regions in the Wider Caribbean. Within each country there is a country coordinator who heads the country task force and leads in the development of the country network. The country network is composed of a wide variety of organizations and individuals. Virtually anybody who is concerned about sea turtles and wants to work on the local level is involved. While the Team member is responsible for writing the sea turtle recovery plan for each country, he or she depends greatly upon input from the people of that country.

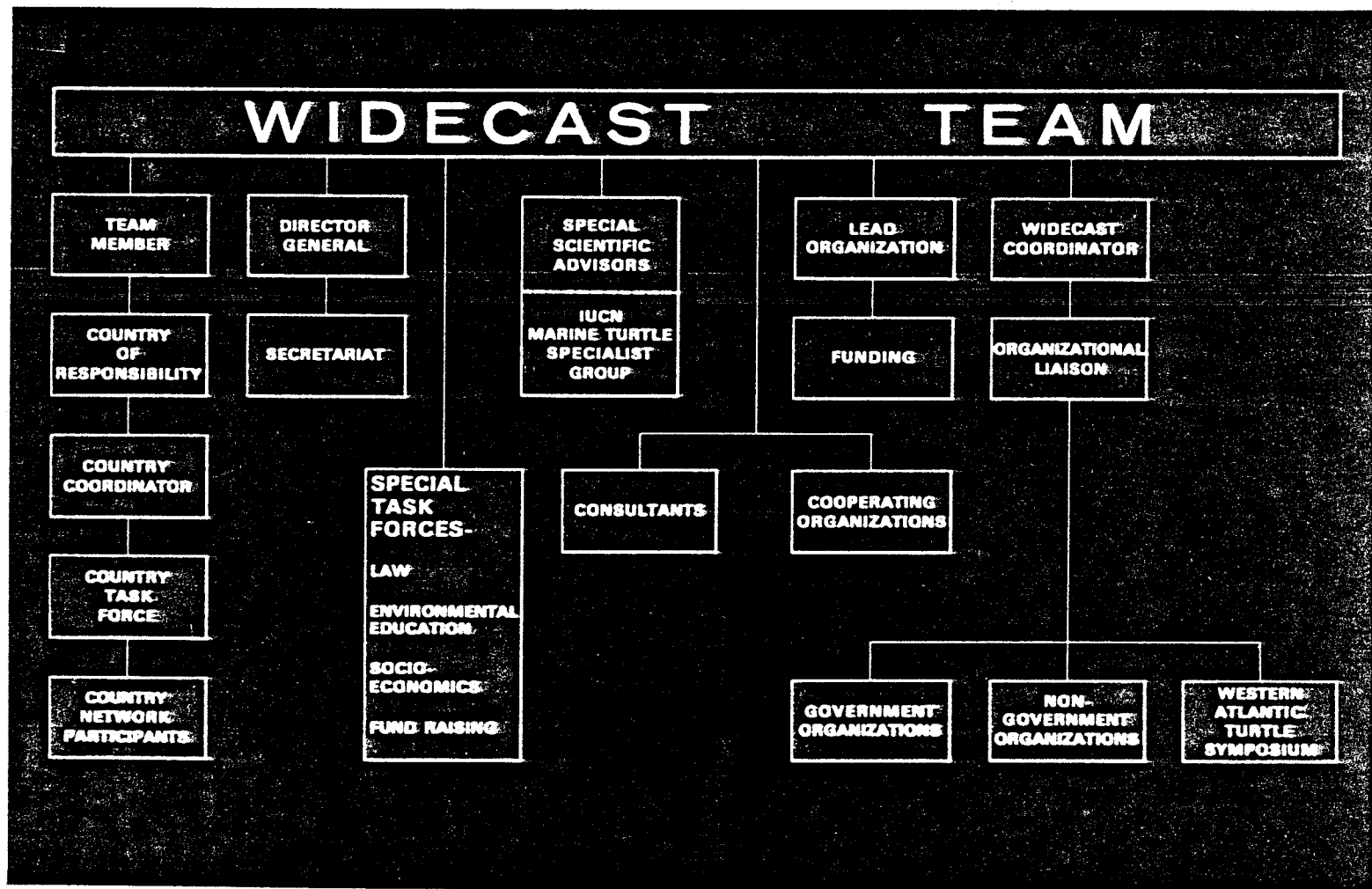


Figure 3. The WIDECAST Organization.

3) Director General

The current Director General is Dr. James Richardson, maintaining the Director General's office at the Institute of Ecology on the campus of the University of Georgia-Athens. The role of the Director General can perhaps best be described as that of "Chief Goad". While being appointed by and responsible to the Team, he is the one who keeps them going, encouraging them and assisting in the development of country networks and in the production of recovery plans. He works closely with the lead organization (Monitor International) and the WIDECAST Coordinator (Milton Kaufmann). The Director General is also involved in the establishment of special task forces, each of which is to address specific aspects of WIDECAST business.

4) Secretariat

Dr. Richardson was originally appointed as Director General of the WIDECAST Secretariat and was to maintain it at the UGA Institute of Ecology office. However, due to a lack of funds, in January of 1986 the Secretariat was transferred to the WIDECAST Coordinator's office in Gaithersburg, Maryland.

The Secretariat is the home base of WIDECAST business. All communications, recovery plans, translations and general secretarial duties are handled there. Maintaining the Secretariat has proven to be a very time consuming job. Dealing with 39 countries in 4 different languages results in a tremendous amount of paper work.

5) Special Task Forces

WIDECAST currently has four special task forces, established to work in the areas of 1) law, 2) environmental education, 3) socio-economic issues, and 4) fundraising. These are organized by the Director General and work principally with him and the Team. Members of the task forces come from throughout the Wider Caribbean. For instance, teachers from Costa Rica and Haiti may both serve on the environmental education task force. This unique aspect of WIDECAST is very important to the long term success of the project. Currently the potential and importance of the task forces is often overlooked in the rush to produce tangible results.

6) IUCN Marine Turtle Specialist Group

When the recommendation was approved at Santo Domingo, it was suggested that the NGO (WIDECAST) writing the sea turtle recovery plan for the Wider Caribbean work closely with the International Union for the Conservation of Nature and Natural Resources (IUCN) Marine Turtle Specialist Group. WIDECAST welcomes assistance from this group, actively attempting to maintain close relations with them. It's important for WIDECAST to work with this group not only because of their knowledge regarding sea turtles, but also because they represent the IUCN. As WIDECAST is an international effort, it is critical to work as closely as possible with organizations like the IUCN.

7) Consultants

As WIDECAST gains exposure, more and more people are getting involved. Many contribute to WIDECAST by serving as consultants. Consultants to WIDECAST run the gamut from politicians to fishermen to housewives. In many cases people will serve on one of the task forces as well as consultants, or perhaps are members of a country network.

8) Lead Organization

Monitor International serves as the lead organization for WIDECAST. Monitor International is well known and respected throughout the international conservation community and is instrumental in leading WIDECAST as it works with organizations such as UNEP, IUCN and the Caribbean Conservation Association (CCA). The lead organization is also responsible for fundraising, currently a critical issue for WIDECAST.

9) WIDECAST Coordinator

The WIDECAST Coordinator is supplied by the lead organization, Monitor International. It is no coincidence that Mr. Milton Kaufmann serves as President of Monitor International and also as the WIDECAST Coordinator. He originated the idea and was solely responsible for WIDECAST's charter being obtained. In 1972 he founded Monitor International, and since that time has been very active in international conservation.

As Coordinator of WIDECAST, Mr. Kaufmann works as a liaison between WIDECAST and government organizations, NGOs and also the

group involved with the Western Atlantic Turtle Symposium II (WATS II). His work is essential if WIDECAST is to be accepted by existing organizations. As would be expected, there is a good deal of overlap between his work as President of the lead organization, Monitor International, and as Coordinator of WIDECAST.

D. HOW WIDECAST FUNCTIONS

How does this organization function? Perhaps the clearest understanding can be achieved by taking a "walking tour" with a recovery plan.

In order to write a recovery plan, the Team member responsible must gather as much information as possible regarding sea turtles and their use in the government region. The plan will be written in four sections: (Appendix 5)

- 1) Introduction.
(includes information regarding historical as well as present usage of turtles as well as cultural or religious values);
- 2) Status and distribution;
- 3) Stresses; and
- 4) Solutions to stresses.

As the Team member writes the plan, he collaborates with the many sources available to him. The Director General assists the Team member as needed. The Secretariat handles all mailing, translation and other clerical duties. The IUCN Marine Turtle Specialist Group is used for scientific reference. The Team member will gather information from the country coordinator,

taskforce and network. Consultants give him much needed input, be they teachers, fishermen or politicians.

Quite often Team members will work closely with government representatives as they prepare a recovery plan for a specific country. This cooperation should prove to be very helpful later on when these same government people are asked to approve the plan as policy.

Once the first draft of the plan is written, it is sent to the Secretariat and subsequently reviewed by the other Team members. After review, the author will make the final decision regarding any changes to be made. The completed plan then becomes part of the set of plans kept by the Secretariat.

The recovery plan(s) become the official policy of countries in the Wider Caribbean region by one or both of two ways. In accordance with the pending UNEP agreement, the plan(s) will be redesignated draft Sea Turtle Section, APCEP, regrouped into 29 plans in accordance with UNEP designation, and given to the appropriate government liaison officer, ultimately to be approved by his government. Following governmental approval, the plan becomes official policy of that government region.

Secondly, the plans will be submitted as proposals at the first meeting of the contracting countries to the Cartagena Convention. The proposals will be an annex to the Protocol on

Specially Protected Areas and Wildlife. The Convention should be ratified by the necessary nine parties in the very near future, with the first meeting taking place within two years from the ninth ratification. If the above protocol and attached annexes are accepted by the contracting parties, the plans become accepted policy in those countries.

E. THE FUTURE OF WIDECAST

At present, the working parts of WIDECAST are in place. The organization is established, and inspirational negotiations are continuing with UNEP. Yet, the project is progressing very slowly. The future existence and progress of WIDECAST as it was designed is dependent on two main factors - the same factors slowing progress at present. These two factors are: 1) establishment of a solid long term financial base, and 2) maintenance of a strong Wider Caribbean influence and keeping U.S. influence to a minimum.

Establishment of a financial base

Even though WIDECAST is a totally volunteer effort, expenses are high, particularly in the areas of travel and Secretariat functions. A Team meeting costs a minimum of \$10,000 (U.S.). There are at least two meetings per year. Also, many Team members are responsible for countries in which they do not reside, thus trips to the country by the Team member are necessary. The Secretariat, in dealing with 39 countries in 4 different languages, consumes a huge portion of WIDECAST's available

monetary resources. Mr. Kaufmann has recruited several volunteers in the Washington, D.C. area who are assisting him with clerical work, but the monetary load remains very heavy on WIDECAST's minute budget.

Additional funding must be obtained if WIDECAST is to continue functioning. Dr. Richardson is concentrating his efforts in this area, viewing it as a top priority. Mr. Kaufmann is currently working with UNEP to finalize the contract that calls for WIDECAST to submit its plans as Sea Turtle Sections of APCEP. According to the contract WIDECAST will receive a \$27,000 (U.S.) grant to produce these Sea Turtle Sections (plans). While \$27,000 is insufficient to produce the plans which are yet to be completed, the UNEP contract is vital as it establishes an official destination for the plans. Once this contract is complete, it should serve as a solid catalyst for the WIDECAST Team to complete its job.

Personnel and U.S. Influence

The WIDECAST project is designed to be an internal one - a project for the Wider Caribbean, run by people from the Wider Caribbean. All of the Team is from the Wider Caribbean with the exception of two U.S. representatives. The Director General, Coordinator and Secretariat are all from or located in the U.S., perching WIDECAST precariously close to being a "gringo" effort. In its present state, WIDECAST is coming under some criticism as being overly influenced by the U.S. contingent.

In the future WIDECAST is planning for the Director General to be from the Wider Caribbean. In the future there should only be one U.S. Team member. Finally, the Secretariat should be moved to Kingston, Jamaica, to be in close proximity to UNEP's Regional Coordinating Unit for the Wider Caribbean. These changes are planned over the next several years.

III. THE INTERNSHIP

A. DEVELOPMENT

Shortly before I was to start my internship working in the WIDECAST Director General's office, Dr. Richardson sent me some background information to review before I arrived in Athens. He also advised me not to get concerned if I didn't immediately understand WIDECAST in its entirety, as it had taken him weeks before he really "knew" WIDECAST. What he had given me proved to be good advice. WIDECAST is a complex project, and it took a good deal of time working within it to completely understand all aspects of the project.

Upon my arrival in Athens, Dr. Richardson and I decided that I would be involved primarily with several specific high priority aspects of WIDECAST, and secondarily I would assist with day to day matters involving the Director General's office. I was to work in the position of Assistant to the Director General, WIDECAST.

B. AREAS OF INVOLVEMENT

Several areas that we identified as being of primary importance were:

- 1) development of presentation material for use by WIDECAST personnel in public meetings and fundraising proposals,
- 2) establishment and maintainance of country contacts, and
- 3) preparation of country recovery plan(s).

1) Presentation material

It was the consensus feeling throughout the WIDECAST organization that a presentation package was needed to use in public education, promotion and fundraising efforts. There was nothing of the sort available, and numerous opportunities for good exposure were being only partially capitalized on or completely lost. In light of this, we (the Director General's office) made the development of such material a top priority.

In the production of this material, I developed ideas and reviewed them at length with Dr. Richardson. We discussed them with Mr. Kaufmann, his opinion as to what the international reaction to this material would be was very important. We initially thought of doing the graphics work ourselves, but after investigating the time and work involved versus the probable quality of the finished product, we made what turned out to be a wise decision and decided to have Cartographic Services on the UGA campus do the actual work. Many hours were spent in consultation with the head of Cartographic Services, Mr. Jim Ingram.

Production of this material proved to be a real learning experience for both Dr. Richardson and myself. We were awed by the amount of time and work that was required to produce what in the end appeared to be 30 simple slides. After several weeks and many, many revisions, we did complete the presentation material. We had reached our objective, to produce information that can be used in whole or in part by any Team member or representative of

WIDECAST to explain the project in a professional manner for the purpose of public education, general exposure or fundraising.

The Director General's office now has 10 presentation packages available that WIDECAST representatives can use. The next step, a relatively small modification, will be to produce the package with French or Spanish text. This remains a high priority, but is dependent upon future funding.

2) & 3) Country contacts and recovery plans

Earlier I described the Director General's job as that of "Chief Goad", the one who is supposed to keep the Team active and producing. In the case of some inactive Team members, Dr. Richardson has found it necessary to actually take over recovery plan preparation as a de facto Team member. Two of the countries the Director General has assumed responsibility for are Brasil and Guatemala. As neither Dr. Richardson nor I are residents of either country it was necessary to start from scratch in the preparation of both plans.

The first step in writing these recovery plans was to establish contact with knowledgeable people in Brazil and Guatemala. In order to make these contacts and start to gather information, I extensively investigated contacts through universities and already established local conservation organizations, i.e. The Brazilian Foundation for the Conservation of Nature. I was most successful in establishing contacts when

I was able to talk in person to either Brazilians or Guatemalans. Aside from the students at the Institute of Ecology, I met no other Brazilians. I was able to talk with Felipe Lemus, a visiting Guatemalan from the University of Guatemala in Guatemala City. He was very excited about WIDECAST and its possibilities in his country, and has agreed to work with us in the future. It is our hope that he will serve as the country coordinator, being a dynamic individual capable of stimulating local involvement.

While the Brazilians may shy from U.S. involvement in their internal conservation matters, I was pleased to learn that there are some very active domestic conservation efforts taking place. One organization, The Comit  Pro-Parque Nacional Marinho de Fernando de Noronha is currently working to establish the Brazilian island of Fernando de Noronha as a national preserve, principally to protect seabirds, turtles and marine mammals. The Executive Coordinator of the Committee, Jose Truda Palazzo, strongly supports WIDECAST. He and I agreed that our organizations should support each other, a relationship that I believe will benefit both in the future.

The inherent problems of dealing with people from countries with different cultures and languages became glaringly obvious as I attempted working with the Brazilians and Guatemalans. Frequently language was a barrier, and probably contributed to the number of no responses. From talking with the Brazilian students at the Institute of Ecology I learned that

efforts by Americans to get involved with Brazil's affairs are usually viewed as "gringo meddling". They were actually quite surprised that I received any response at all.

While the majority of my inquiries drew no response, some proved quite fruitful. Through these efforts I was able to 1) accumulate enough information to make a plan outline, and 2) establish contact with knowledgeable local people who will be helpful in the ongoing preparation of local recovery plans by first reviewing the plan outline and following up with more accurate input to be used in the completed plans.

In addition to developing WIDECAST in Guatemala, I worked together with Dr. Richardson in the preparation of the first draft of the Guatemalan plan (appendix 6), using the information that we had gathered. I was fortunate to have the opportunity to go over the plan with Mr. Felipe Lemus two days before I left Georgia. While the plan we prepared is far from complete, it served the purpose that was intended. That is, it serves as an outline to which local people can contribute, changing it as they see fit. I sent the plan back to Guatemala with Mr. Lemus; he plans to circulate it and solicit input. The input that he gathers will be incorporated into the second draft of the plan, making it as representative as possible of local Guatemalan sentiments. Mr. Lemus's assistance in Guatemala is an example of how WIDECAST works, preparing plans reflecting local opinions and situations as accurately as possible.

On April 2-4, 1986, there was a WIDECAST Coordination meeting in Waverly, Georgia. In preparation for the meeting, each Team member (Dr. Richardson included) was to review 10 recovery plans because the plans were to be discussed at the meeting. I assumed Dr. Richardson's duties, spending roughly two weeks going over the plans of: Belize, Costa Rica, French Guiana, Guatemala, Guadeloupe, Guyana, Suriname, Trinidad/Tobago, U.S.A. and the Wider Caribbean Plan. While this certainly wasn't exciting work, it did familiarize me with the countries involved, and definitely with the structure (or lack of it) of WIDECAST Sea Turtle Recovery Plans.

C. TRAVEL

When I talk with people about this internship, I often hear comments about how enjoyable it must have been to work in the Caribbean, what with all the sun, sandy beaches ect.. Regretfully, I wasn't in the Caribbean long enough to really know if it's nice or not. The extent of my travels during the internship were two weekend trips to southern Georgia, a one week stay in Washington, D.C. during the return trip to Oregon, and a ten day trip to Culebra, P.R. to assist with a Leatherback Turtle project.

The first trip to southern Georgia was to the town of Waverly, for the Sixth Annual Workshop on Sea Turtle Biology and Conservation. This conference took place soon after I arrived in

Georgia, and the extent of my participation was to meet WIDECAST personnel and talk about the project with them. The second trip was for the WIDECAST Coordination meeting mentioned above. This meeting consisted of, for the most part, group reviews of the 10 plans. Other WIDECAST business that took place at this meeting was minimal, but enlightening as to how the group works together.

On my return trip to Oregon, I stopped for one week to work with Mr. Kaufmann at the WIDECAST Secretariat in Washington, D.C.. This proved to be an abrupt change from Georgia. After many years in the Washington area, Mr. Kaufmann seems to know everybody who is "anybody", and a good deal of his time is spent bouncing from office to office taking care of various matters. It was a very busy week in which I met many top level officials, saw how business is conducted in Washington, and was generally worn to a frazzle by Mr. Kaufmann. It was a great learning experience, an extremely worthwhile detour on my trip.

The Leatherback Sea Turtle project I assisted with on Culebra is being conducted by Mr. Tony Tucker, a graduate student at the University of Georgia. Tony is a close associate of Dr. Richardson and is actively involved in WIDECAST. As he was on campus taking classes when I arrived in Athens I became familiar with his work on Culebra. Both Dr. Richardson and I felt that it would be beneficial for me to spend at least a short time in the Caribbean, meeting people and learning more about the lifestyle, so I arranged with Tony to visit Culebra.

Tony is studying Leatherbacks on two Culebran beaches, Bravo and Fajardo, each approximately one kilometer long. The beaches are patrolled nightly from early April until mid July looking for nesting females and hatchlings. My involvement was similiar to the other workers, walking the beach in shifts, recording information and assisting in nest excavations. I thoroughly enjoyed the trip to Culebra. Though I did not conduct formal WIDECAST business while there, it was beneficial in that I was able to actually get out on the beach and work with some turtles. This experience reiterated to me that every issue or effort is multidimensional.

IV. EVALUATION

A. WIDECAST

Throughout the internship both Dr. Richardson and Mr. Kaufmann were extremely open to my questions and observations, always eager for fresh ideas regarding WIDECAST. In fact, aside from actual physical productions perhaps my greatest contribution to WIDECAST was to supply input as an outsider.

WIDECAST has, over the first few years, become a legitimate international conservation effort recognized by both local and international communities. Recovery plans have been written for 10 of the 39 government regions, and a supportive network of over 300 individuals and organizations has been put together. While these accomplishments are certainly laudable, there are some problems with the project that must be faced if it is to survive.

Mr. Kaufmann, as the originator of WIDECAST, has done a fine job of setting up official affiliations and clearing avenues to allow the final works to carry some weight. However, for a variety of reasons, WIDECAST, as it has been presented up until this time, is too confusing to be a popular grassroots project. In conversations I've had with long time WIDECAST supporters, I have heard repeatedly that WIDECAST needs to be streamlined, at least in it's public image. That is what Dr. Richardson and I attempted to do in the preparation of the presentation material. Even with our conscious efforts to the contrary, it still seems

very complex. This public image problem must be avoided if WIDECAST is to succeed in getting more people involved.

WIDECAST is currently constrained by a lack of funding. While both Dr. Richardson and Mr. Kaufmann are working part time to raise money, it's doubtful that their efforts are likely to result in sufficient long term funding. For WIDECAST to run at full steam, a minimum annual budget of \$200,000.00 (U.S.) is needed. It is the opinion of many, myself included, that the most efficient way to raise backing of this magnitude is not through the part time efforts of scientists, but rather by employing a professional fund raiser. I have discussed this at length with Dr. Richardson, and he wholeheartedly agrees. Whether or not WIDECAST decides to go this route will be determined by the Team and Mr. Kaufmann. Mr. Kaufmann opposes paying WIDECAST personnel, as he wants to keep it as much a volunteer effort as possible. However, if the funding situation becomes more critical, the Team may well force action, either the hiring of outside help or a change in internal structure.

It is critical that, as WIDECAST develops, the Wider Caribbean personnel and their influence increase, preferably with a concurrent decrease in U.S. dominance. I mentioned earlier that WIDECAST is on the edge of being too gringo to be accepted in the Wider Caribbean. As many of the key WIDECAST figures are from the U.S, often their first impulse is to look for help from U.S. sources. Even though it may slow WIDECAST progress initially, a

conscious effort should be made to do the opposite, to phase out U.S. involvement and increase the involvement of Wider Caribbeans. This idea is rather unpopular with WIDECAS (U.S.), as few are willing to let go of their influential positions for a variety of reasons.

B. INTERNSHIP

The internship that I served working in the Director General's office was for the most part a positive, valuable experience. The most notable positive aspect of the internship was the group of people that I worked with. They are a dynamic, enthusiastic bunch that believe in what they are doing. As I went to work each morning, it was pleasant to know that people were going to be working together in a positive atmosphere towards a goal viewed communally as worthwhile.

While we did have established priorities, I was allowed to explore opportunities, trying my hand at just about anything deemed pertinent. For that freedom I am thankful. I'm certain I learned more from jumping into the hub of activity that is Dr. Richardson's office than I could have by just reading about or having peripheral involvement with WIDECAS, sea turtles, or any of the multitude of projects going on there.

The Director General's office is located in Athens because Dr. Richardson is located there. Having the office in Athens is cumbersome and inconvenient from a WIDECAS standpoint. The

position of Director General is a management position, and requires extensive travel. This could be done at lower expense in terms of both dollars and time from a location in the Caribbean. As mentioned earlier, I feel the Director General's office should be in the Caribbean, preferably in Jamaica. Athens is well removed from all the WIDECAST countries except the U.S., but more importantly it is in the U.S., only adding to the acceptance problem.

I've already expounded upon WIDECAST's money problems. I learned first hand how short funds were when I actually received one-fourth the amount initially discussed. Dr. Richardson simply did not have the funds with which he had planned to support me. Fortunately, this situation didn't result in any undue hardship, primarily due to lots of southern hospitality.

In retrospect, I see that I was very fortunate that 1) this internship ever materialized, 2) that consequences allowed me to complete it even though funding was severely reduced, and most importantly 3) the internship allowed me to do just what I had hoped - get directly involved in an innovative international conservation effort. My one disappointment was that a more permanent position did not come from the internship. However, by giving me many valuable contacts and teaching me some of the "ropes", this experience will prove invaluable in the future.

REFERENCES

- Fraser, Nat B. OCEANUS 27(3), Fall 1984. pp. 85-88.
- _____. OCEANUS 28(1), Spring 1985. pp. 100-102.
- Kaufmann, Milton M. Report of the Meeting of Non-Governmental Caribbean Conservation Organizations on Living Resources Conservation for Sustainable Development in the Wider Caribbean. Presented at WIDECAST meeting #4, October 15, 1984. Panama City Panama.
- _____. WIDECAST/Monitor International Project Proposal 33 (APCEP 6/1). Submitted to UNEP April 24-26, 1985.
- Moi, Daniel Arap. UNEP Governing Council Meeting 10. INF.5 May 19, 1982.
- Richardson, James I. Outline, WIDECAST Sea Turtle Recovery Plans. 6 pages.

"REPORT OF THE MEETING OF NON-GOVERNMENTAL CARIBBEAN CONSERVATION
ORGANIZATIONS ON LIVING RESOURCES CONSERVATION FOR
SUSTAINABLE DEVELOPMENT IN THE WIDER CARIBBEAN

Santo Domingo, Republica Dominicana
26 al 29 de Agosto de 1981

Sponsoring Institutions/Instituciones Colaboradoras

Canadian International Development Agency
Agencia Canadiense de Desarrollo Internacional

Caribbean Conservation Association
Asociacion para la Conservacion del Caribe

International Union for Conservation of Nature and Natural Resources
Union Internacional para la Conservacion de la Naturaleza y de los
Recursos Naturales

United Nations Environment Programme
Programa de las Naciones Unidas para el Medio Ambiente

World Wildlife Fund

"Management of Natural Resources

The participants reinforced the concepts of sustainable use of species and ecosystems and conservation of genetic resources as stated in the World Conservation Strategy (WCS) and the need for maintaining life support systems.

A specific recommendation for the establishment of a wider Caribbean sea turtle recovery plan was approved in this context (see full text in Annex 4)".

"Annex V

Recommendation for a Wider Caribbean Sea Turtle Recovery Action Plan

The relevant NGOs should prepare a Wider Caribbean Sea Turtle Recovery Action Plan in coordination with the IUCN SSC Sea Turtle Specialist Group who would be asked to serve as a scientific advisory committee in support of the plan.

The Recovery Plan should be consistent with the Strategy for Conservation of Living Marine Resources and Processes in the Caribbean Region, the World Conservation Strategy and the Action Plan for the Caribbean Environmental Programme.

Specific action in the plan would include those identified in the World Sea Turtle Conservation Meeting (see Turtle Action Plan and IUCN Programme)".

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and
Wider Caribbean Sea Turtle Conservation NetworkTable of Contents

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*Note on the titling of Country - Government Region Sea Turtle Recovery Action Plans.

The number in parenthesis, preceding the country/government region name becomes a part of the plan title. Example:

ANTIGUA AND BARBUDA SEA TURTLE RECOVERY ACTION PLAN

(Annex 2 of the Wider Caribbean Sea Turtle Recovery Action Plan)

The Wider Caribbean Sea Turtle Recovery Action Plan will consist of 40 volumes. Volume 1 will be the basic general plan. It will have 39 country/-government region annexes. (volumes 2 through 40). Accordingly, Annex 2 of the 40 volume Plan will be Volume 3.

WIDECAST NETWORK ROSTER

Personnel and Organizations
Wider Caribbean Sea Turtle Recovery Team and
Wider Caribbean Sea Turtle Conservation Network

(As of 31 March 1986)

WIDECAST Team Members

Chairperson

John Fuller (Antigua)
P. O. Box 1168
St. John's, Antigua
O: (809) 462-0485
H: (809) 462-3085

Vice-Chairperson

Maria Teresa Koberg (Costa Rica)
Apartado 398-1005
San Jose, Costa Rica
H: (506) 324120

Dr. Nat B. Frazer (USA)
Department of Biology
Mercer University
Macon, Georgia 31207 (USA)
O: (912) 744-2707
H: (912) 745-2110

Jacques Fretey (France)
(French Caribbean Overseas Departments)
Laboratoire des Reptiles & Amphibiens
Museum National de Histoire Naturelle
25, Rue Cuvier
75005 Paris, France
O: (331) 336 0021
H: 25 75 33 43

Molly Gaskin (Trinidad and Tobago)
The Pointe-a-Pierre Wild Fowl Trust
42 Sandown Road
Goodwood Park
Pt. Cumana, Trinidad
(809) 637-5145

Argelis Guevara (Panama)
Smithsonian Tropical Research Institute
Apartado 2072
Balboa, Republic of Panama
O: (507) 525840
(507) 228240
(507) 522564
(507) 522579

Alternate Address for Sra. Guevara:
Smithsonian Tropical Research Institute
APO Miami 34002 (USA)

Sally Hopkins Murphy (USA)
Endangered Species Section
South Carolina Wildlife & Marine Resources Dept.
P. O. Box 12559
Charleston, South Carolina 29412 (USA)
O: (803) 795-6350
H: (803) 844-8162

Dr. Francisco Palacio (Colombia)
8730 SW 51st Street
Miami, Florida 33165 (USA)
O&H: (305) 596-5289

Prof. Jorge Luis Pinero (Puerto Rico) (USA)
Director, Depto. de Ciencias y Tecnologia
Universidad de Turabo
Caguas, Puerto Rico 00625
O: (809) 744-8792
H: (809) 752-1272

Dr. Peter Pritchard (U.K.)
401 South Central Avenue
Oviedo, Florida 32765 (USA)
H&O: (305) 365-6347
O: (305) 647-2615

M.V.Z. Georgita Ruiz de G. C. (Mexico)
Escuela de Medicina Veterinaria y Zootecnia
Universidad Autonoma Benito-Juarez de Oaxaca UABJO
Oaxaca, Oaxaca, Mexico
O: 557-74-56
H: 576-87-84 (Try first)

or

Colin 145 Lomas Bezeres (Best Address)
Mexico D.F.
H: 576-87-84

2. Director General

Responsibilities:

- a. WIDECAST Policy Oversight
- b. De facto Team Member for assigned countries

Dr. James I. Richardson, Director General, WIDECAST
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968
Telex: 810-754-3908
H: (404) 548-9046

- O = office telephone number
H = Home telephone number
() = Area codes and international telephone routing in parenthesis

Director General's Staff (Athens, Georgia)

Responsibilities: Provide support to Director General

Saundra Green
Administrative Assistant to Director General
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968
H: (404) 769-9889

Rebecca Bell
International Assistant to Director General
Little Cumberland Island, Box 3127
Jekyll Island, Georgia 31520 (USA)
H: (912) 264-7412
Leave message to return call.

Edward Brunson
Assistant to Director General
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968

Team/Network Coordinator and Director, Secretariat (Acting)

Milton M. Kaufmann
19386 Montgomery Village Avenue, Box 180
Gaithersburg, Maryland 20879 (USA)
H&O: (301) 948-1831
O: (202) 234-4002

Secretariat Volunteer Staff

Responsibilities:
Communications Center for WIDECAST (Team) and Network
Telephone liaison and correspondence
Supply and distribution of reference documents
Publication and distribution of WIDECAST Bulletin
Provide administrative support for Coordinator/
Director, Secretariat

Dr. Robert W. Roig
Special Assistant to Coordinator/Director,
Secretariat (Acting)
19160 Roman Way
Gaithersburg, Maryland 20879 (USA)
H: (301) 977-7639
O: (703) 883-5634

Dorothy Penney
WIDECAST Bulletin Editor and Editorial Review
2000 Homer Terrace
Reston, Virginia 22091
O: (703) 883-5977
H: (703) 476-8293

Preston Rogers
Plan Preparation Support
512 Beaumont Road
Silver Spring, Maryland 20904
H&O (301) 384-6605

Armin Behr
Fund Raising Task Force Support
6310 Swordsway
Bethesda, Maryland
O: (202) 252-9035
H: 897-5563

Sara Davies
Administrative Assistant (Fund Raising)
H: (202) 547-1828

James Watson
Document Reproduction
8939 Heckscher Street
Fort George Island, Florida 32226
O: (904) 355-6421

Working Group for Technical Review of Draft Plans
(When possible chaired by WIDECAST (Team) Chair-
person or Vice-Chairperson)

Rebecca Bell, Assistant to Director General
Karen Eckert, Consultant
Scott Eckert, Consultant
Saundra Green, Assistant to Director General
Tom Murphy, Consultant
Sally Murphy, Team Member
Peter Pritchard, Team Member
James Richardson, Director General, WIDECAST,
de facto Team Member
Milton Kaufman, Coordinator, Director,
Secretariat (Acting)

5. Special Scientific Advisor to WIDECAST Team

Marine Turtle Specialist Group
IUCN Species Survival Commission
Department of Zoology
University of Florida
Gainesville, Florida 32611 (USA)

Representative - Dr. Karen Bjorndal,
Chairperson O: (904) 392-1924
Alternate Reps. - Dr. Archie Carr
O: (904) 392-1250
Dr. Anne Meylan
American Museum of
Natural History
New York, New York
O: (212) 873-1300, Ext. 415

6. Lead Organization

Monitor International
1506 19th Street, N.W.
Washington, D.C. 20036 (USA)
Representative - Tom Garrett, Director of
Projects (202) 483-6069

7. Cooperating Organizations and Organizational
Representatives

American Cetacean Society
1200 South Arlington Ridge Road, Apt. 410
Arlington, Virginia (USA)
Representative - Barbara Britten
H&O: (703) 920-0076

Caribbean Conservation Association (CCA)
Savannah Lodge, The Garrison
Barbados, West Indies
Representative - Yves Renard, President, CCA
O: (809) 426-5373

Center for Environmental Education
624 9th Street, N.W., 5th Floor
Washington, D.C. (USA)
Representative - Michael Weber
(202) 737-3600

Chelonia Institute
P. O. Box 9174
Arlington, Virginia 22209 (USA)
Representative - Robert W. Truland,
Director O: (202) 737-3600

Chelonia Society
Turabo University
Caguas, Puerto Rico 00625
Representative - Ruth Vallego
(809) 752-1272
Alternative Rep.- David Colon
(809) 744-8792

Defenders of Wildlife
1244 19th Street, N.W.
Washington, D.C. (USA)
(202) 659-9510

Federacion Mesomerica de Asociaciones
Conservacionistas No Gubernamentales (FEMAC)
(no address available at this time)
(506) 244578

Floridan Audubon Society
921 Lake Sybellis Drive
Maitland, Florida (USA)
Representative - Dr. Peter Pritchard
H: (305) 647-2615

Fund for Animals
200 West 57th Street
New York, New York 10019 (USA)
Representative - Cleveland Amory
O: (212) 246-2096

Greenpeace Southeast
P. O. Box 50489
Jacksonville Beach, Florida 32240 (USA)
Representative - Bruce Jaildagian
H&O: (904) 427-2025
Alternate Rep. - Leslie Scheele
O: (904) 241-4310

Hubbs-Sea World Research Institute
1700 S. Shores Road, Mission Bay
San Diego, California 92109 (USA)
Representative - Dr. William F. Evans
O: (619) 226-3870
H: (619) 745-1907
Alternate Rep. - Edward D. Asper
Hubbs-Sea World Research Institute
7007 Sea World Drive
Orlando, Florida 32821 (USA)
(305) 351-3600 X 511

Nature Conservancy
1785 Massachusetts Avenue, N.W.
Washington, D.C. 20036 (USA)
(202) 483-0231

Oceanic Society
1536 16th Street, N.W.
Washington, D.C. (USA)
Representative - Mr. Cliff Curtis,
Director, Ocean Policy and Planning
Office
O: (202) 328-0098
Alternate Rep. - Sally A. Lentz

Programme Activity Centre for Oceans and
Coastal Areas (OCA/PAC)
United Nations Environment Program (Invited)
Nairobi, Kenya
Representative - Bert Nielsen, Coordinator
Action Plan for Caribbean Environment Program
(254-2) 333930

United Nations
University for Peace
Apartado 199
Escazu, Costa Rica, C.A.
Representative - Murray Silberman, Director of
Planning & Development
H: (506) 28-0574
28-5116
O: (506) 49-1072

Wildlife Management Center
ECNAMP Coord. Organization
University of Michigan
Ann Arbor, Michigan (USA)

Representative - Dr. David Hales, Director
Alternate Rep. - Cathy Rude
O: (405) 327-2820
(313) 763-1312

World Wildlife Fund - USA
1255 23rd Street, N.W.
Washington, D.C. 20037 (USA)
Representative - Michael Wright
(202) 293-4800

8. Consultants to Team

Arturo Moncaleano Archila - Consultant
INDERENA
Apartado Aereo 2459
Cartagena
Colombia

Lic. Ricardo Mier Ayala
Bioconservacion, A.C.
Berlin 16A
Mexico, D.F., Mexico
O: (905) 546-8827
H: (905) 593-3859

Jose Alberto Ottenwalder
389-3 Maquire Village
Gainesville, Florida 32603 (USA)
O: (904) 392-1721
H: (904) 375-0421

Dr. Peter R. Bacon
Zoology Department
University of the West Indies
Mona, Kingston 7, Jamaica
O: (809) 927-6202

Eduardo Benito -Espinal - Consultant
Dept. de l'Architecture et l'Environnement
Zone Industrielle Lauricisque
B. P. 1002 97178 Point-a-Pitre Cede
Guadeloupe, French Antilles

Timothy Bentley
School of Marine and Atmospheric Science
University of Miami
4600 Rickenbacker Causeway
Miami, Florida 33149 (USA)

Fred Berry
National Marine Fisheries Service (Secretary,
WATS II)
75 Virginia Beach Drive
Miami, Florida 33149 (USA)
O: (703) 527-5124

Dr. Karen Bjørndal - Consultant

Ralf H. Boulon - Consultant
Dept. of Conservation and Cultural Affairs
Division of Fish and Wildlife
Government of the Virgin Islands of the U.S.
101 Estate Nazareth
St. Thomas, Virgin Islands 00801
O: (809) 775-3620

David Bowman
U. S. Fish and Wildlife Service - Region 2
P. O. Box 1306
Albuquerque, New Mexico 87103 (USA)
O: (505) 766-3972

Dr. William Y. Brown
(202) 387-3500

James Burnett - Herkes - Consultant
Assistant Director Fisheries
Department of Agriculture and Fisheries
P. O. Box 834
Hamilton 5, Bermuda
O: (809) 296-4201

Paul J. Butler - Consultant
Conservation Advisor, Forestry Division
Ministry of Agriculture, Lands and Fisheries
Castries, St. Lucia, West Indies
O: (809) 23231

Milton Camacho - Consultant
Departamento de Servicios de Parques Nacionales
y Fauna Silvestre
Hda. Sta. Irena, Apartado 5123
Managua, Nicaragua

Guillermo Canessa - Consultant
Departamento de Pesca y Vida Silvestre
Ministerio de Agricultura y Ganaderia
San Jose, Costa Rica
O: (506) 32-23-44

Tom Carr
Florida State Museum
University of Florida
Gainesville, Florida 32603 (USA)
O: (904) 392-9367

Gabriel Charles - Consultant
Forest Supervisor, Forest Division
Lands and Fisheries Department
Ministry of Agriculture
Castries, St. Lucia, West Indies
O: (809) 3231

Cliff Curtis
Oceanic Society
1536 16th Street, N.W.
Washington, D.C. (USA)
O: (202) 328-0098

Dr. Arthur E. Dammann
Caribbean Fisheries Management Council
St. John
U. S. Virgin Islands
H&O: (809) 776-6666

Dorinda Dallmeyer
The Dean Rusk Center
School of Law
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-7875

Jacques De Agostini
Le Deleque Regional A L'Architecture et L'Environnement
de la Guadeloupe,
Martinique, Guyana
Zone Industrielle Lauricisque
B.P. 1002 97178 Point-a-Pitre Cede
Dom: Casagola Morne-d'Union
Guadeloupe
O: (596) 83-53-26
O: (596) 82-53-61

Dr. Kenneth Dodd
Denver Wildlife Research Center
412 NE 16th Avenue, Room 250
Gainesville, Florida 32606 (USA)
O: (404) 372-2571

Marie-Jose Edwards - Consultant
Forestry Division
Botanic Garden
Roseau, Comm. of Dominica

Scott and Karen Eckert
Georgia Sea Turtle Cooperative Research Program
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968

Dr. Llewellyn M. Ehrhart
Department of Zoology
University of Central Florida
P. O. Box 25000
Orlando, Florida (USA)
O: (305) 275-2970
H: (305) 365-3773

Otto Florschutz
USFWS
Box 581
Washington, North Carolina 27889 (USA)
O: (919) 946-1483

Dr. William W. Fox, Jr.
Director, Cooperative Institute for Marine
and Atmospheric Studies (CIMAS)
4600 Rickenbacker Causeway
Miami, Florida 33149 (USA)
O: (305) 361-4185

Charles Frances - Consultant
Department of Agriculture, St. Georges
Grenada, West Indies

Dr. John G. Frazier
Box 404
Route 2 Avon
Charleston, West Virginia 25414 (USA)
H: (304) 725-6463

Sean Furniss - Consultant
Refuge Manager
U. S. Fish and Wildlife Service
Caribbean Islands National Wildlife Refuges
P.O. Box 510 Carr. 301 Kom. 5.1
Boqueron, Puerto Rico 00622-0510

Paul Gertler
Field Supervisor
USFWS/Endangered Species & Habitat Office
P. O. Box 9137
Santurce, Puerto Rico 00908 (USA)
O: (809) 753-3037

Michel Godefroy - Consultant
Assistant Chef des Relations Publiques
Office National du Tourisme
Port-au-Prince, Haiti

Dr. Melvin Goodwin, Projects Director
Environmental Research Projects
P. O. Box 208
Narragansett, Rhode Island 02882 (USA)
(401) 789-5133

Dr. Guy Guagni Dei Marcovaldi
Departamento de Parques Nacionais - IBDF-MA
SBN-ED, Palacio Do Desenvolvimento
12.O. Andar, Brasilia, D.F., Brazil
(55-61) 225-7517
(55-61) 228-8125
(55-61) 225-3241

Ann Haynes - Consultant
Natural Resources Conservation Department
53 1/2 Molyneux
KGN 10, Jamaica, West Indies

Jeanette Hemley
Deputy Director/TRAFFIC
World Wildlife Fund - US
1255 23rd Street, N.W.
Washington, D.C. 20037 (USA)
O: (202) 293-4800

Jaime Incer - Consultant
Departamento de Servicios de Parques Nacionales
y Fauna Silvestre
Instituto Nicaraguense de Recursos Naturales y del
Ambiente
Hda. Sta. Irena Km. 12 1/2 Carretera Norte
Managua, Nicaragua

The Honorable Alan Isaacs - Consultant
77 Millsborough Avenue
Kingston 6, Jamaica, West Indies

Arlington James - Consultant
Forest Officer
Forestry and Wildlife Division
Botanic Garden
Roseau, Dominica
O: (809) 449-2731

Dr. Carol James - Consultant
Zoologist and Head, Wildlife Section,
- Forestry Division
Ministry of Agriculture
Lands and Food Production
Long Circular Road
St. James, Trinidad, W.I.
O: (809) 622-4521
622-5214
622-7476
622-2367
H: 623-5941

John Jeffers - Consultant
Government Fisheries Officer
Government of Montserrat
Montserrat, W.I.

Rolph Juhl
International Fisheries Coordinator, NMFS
P. O. Drawer 1207
Pascagoula, MS 39568-1207
O: (601) 762-4591

Earl Junion - Consultant
Departamento de Pesca y Vida Silvestre
Ministerio de Agricultura y Ganaderia
San Jose, Costa Rica
O: (506) 31-23-44

Dr. Gerald A. Lieberman
WWF - US
1255 23rd Street N.W.
Washington, D.C. 20037 (USA)
O: (202) 293-4800
H: (703) 941-6413

Carlos Lizano - Consultant
Departamento Legal
Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Dr. Ariel Lugo
Institute for Tropical Forestry
Southern Forestry Experiment Station, Box AQ
Rio Piedras, Puerto Rico 00928
O: (809) 763-3939

Dr. Peter Lutz
CIMAS
4600 Rickenbacker Causeway
Miami, Florida 33149 (USA)
O: (305) 361-4177

Edmond L. Magny - Consultant
Directeur - Adj. des Ressources Naturelles
Ministere de l'Agriculture, des Ressources
Naturelles et du Developpement Rural
Damian
Port-au-Prince, Haiti

Dr. Guillermo W. Mann (Chile)
Nature Conservancy
1785 Massachusetts Avenue, N.W.
Washington, D.C. 20036 (USA)
(202) 483-0231

Franklin Margetson - Consultant
Vice President, Montserrat National
Trust
Montserrat, W.I.

Mirna Marin
Jefe de Investigaciones Aplicadas
Direccion General de Recursos Naturales Renovables
Barrio Guacerique Casa #1534
Comayaguela, D.C. Honduras

Rene Marquez - Consultant
Fisheries Biologist
Apartado 695
Manzanillo Co. 28200
Mexico

Rod Mast
WWF - US
1255 23rd Street, N.W.
Washington, D.C. 20037 (USA)
O: (202) 293-4800

Reynaldo Maxwell - Consultant
JAPDEVA
Puerto Limon, Costa Rica
O: (506) 58-17-92

E. Orren Merren, III - Consultant
701 Washington Bldg.
15th Street & New York Avenue, N.W.
Washington, D.C. 20005 (USA)
(202) 347-4910

Winston Miller - Consultant
Deputy Minister of Fisheries
P. O. Box 148
Belize City, Belize
O: (501) 44552
(501) 44708

Lucrecia Monterroso - Consultant
Administradora
Parque Nacional de Cahuita
c/d Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Gerardo Morales - Consultant
Departamento de Educacion Ambiental
Servicio de Parques Nacionales
Ministerio de Agricultura y Ganaderia
Ciudad
O: (506) 33-52-84

Merilio Morell
Director, National Park Service
Dominican Republic

Tom Murphy
Poco Sabo Plantation
Green Pond, South Carolina 29446 (USA)

Carlos Nagel, Director
Cultural Exchange Service
765 West Limberlost #32
Tucson, Arizona 85705 (USA)
(602) 887-1188

Dr. David Nellis - Consultant
Division of Fish and Wildlife
Government of the Virgin Islands of the U.S.
101 Estate Nazareth
St. Thomas, Virgin Islands 00801
O: (809) 775-3620

Keith Nichols, Consultant
Fisheries Management Unit
Ministry of Agriculture and Fisheries
Manoel Street
Castries, St. Lucia, West Indies

Larry Ogren
NMFS/SEFC
3500 Delwood Beach Road
Panama City, Florida 32407 (USA)
O: (904) 234-6541

Charles Oravetz
SE Region, NMFS, Duval Bldg.
9490 Koger Blvd.
St. Petersburg, Florida 33702 (USA)
O: (813) 893-3366
H: (813) 867-5878

Joseph Parsons - Consultant
Fisheries Officer
Agriculture and Natural Resources
Government Administration Building
Grand Cayman
Cayman Islands, BWI

Jorge E. Picon - Consultant
Special Agent
U. S. Department of Interior
Division of Law Enforcement
P. O. Box 61069
DFW Airport, Texas 75261 (USA)

Marck Prottri - Consultant
Parque Nacional de Cahuita
Limon, Costa Rica

Dr. Allen D. Putney
ECNAMP
c/o West Indies Laboratory
Teague Bay, Christiansted
St. Croix, US Virgin Islands 00820
(809) 773-5854

Bheesham Ramdial - Consultant
Forestry Division
Long Circular Road
St. James, Trinidad, West Indies

Richard B. Roe
Director, Office of Protected Species and Habitat
Conservation
National Marine Fisheries Service
Washington, D.C. 20235 (USA)
(202) 634-7461

Emily Roet
Center for Environmental Education
624 9th Street, N.W., 5th Floor
Washington, D.C. (USA)
(202) 737-3600

Lic. Marianela Rojas - Consultant
Asesora en Ciencias y Matematicas
Ministerio de Educacion
San Jose, Costa Rica
O: (506) 23-16-66
(506) 37-60-63

Prof. Flor Rojas - Consultant
Ministerio de Educacion
San Jose, Costa Rica
O: (506) 23-16-66

Juan Carlos Romero - Consultant
Administrador
Parque Nacional Tortuguero
c/d Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Dr. Robert E. Roth,
Professor of Environmental Education
School of Natural Resources
Ohio State University
2021 Coffey Road
Columbus, OH 43210 (USA)
O: (614) 422-5589

Patrick Roumieu, Consultant
Office National des Forets
Parc Naturel
Basse Terre, Guadeloupe, French Antilles

Dr. Leon Sanite, Consultant
Directeur des Services Veterinaires
Avenue Pasteur
97300 Guyane Francaise

Dr. Thomas J. Schoenbaum
Executive Director
The Dean Rusk Center
School of Law
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-7875

Dr. Richard A. Seigle
International Fund for Animal Welfare
217 Border Drive
Belvedere, South Carolina 29841 (USA)
O: (803) 725-2472
H: (803) 278-4158

Murray Silberman
Director of Planning and Development
United Nations University for Peace
Apartado Box 199
Escazu, Costa Rica, C.A.
H: (506) 28-0574
28-5116
O: (506) 49-1072

Rick Skerrett - Consultant
Basseterre
St. Kitts-Nevis, West Indies

Dr. James Talbot - Network Participant
USAID/Port-au-Prince
Agency for International Development
Washington, D.C. 20523

Lic. Ana Maria Tato - Consultant
Jefe
Departamento Legal
Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

John Taylor - Consultant
Refuge Manager
Culebra National Wildlife Refuge
Culebra, Puerto Rico 00645

Dr. Edward L. Towle, President
Island Resources Foundation
Red Hook Center, Box 33
St. Thomas, U. S. Virgin Islands 00801
(809) 775-3225

Otto Tranberg - Consultant
Senior Conservation Law Enforcement Officer
Dept. of Conservation and Cultural Affairs
111 Watergut
Christiansted, St. Croix, USVI 00820

Michel-Ange Voltaire - Consultant
Directeur General
Office National du Tourisme et des
Relations Publiques
Port-au-Prince, Haiti

Mrs. Waight - Consultant
Belize Audubon Society
P. O. Box 3
Belize City, Belize
(501) 2450

Horace Walters - Consultant
Chief Fisheries Officer
Ministry of Agriculture
Castries, St. Lucia, West Indies

Randolph Waters, Consultant
Fisheries Div., Department of Agriculture
Rd. Town, Tortola
British Virgin Islands, West Indies
Scott Eckert - Consultant
Karen Eckert - Consultant

Michael Weber
Center for Environmental Education
624 9th Street, N.W., 5th Floor
Washington, D.C. (USA)
O: (202) 737-3600

Robert L. Weinum - Consultant
Regional and General Councilor
Sous-Prefecture de Saint-Martin
Fort Saint-Louis (Marigot)
97150 Saint-Martin (F.W.I.)
O: (596) 875036
875060
875004
H: 875260

Ralph McDonald Wilkins - Consultant
Project Leader
St. Kitts Fisheries
Ministry of Agriculture
St. Kitts-Nevis, West Indies

Dr. James Wood - Consultant
Research Manager
Cayman Turtle Farms, Ltd.
Box 645
Grand Cayman
Cayman Islands, BWI

Jack Woody
U. S. Fish and Wildlife Service - Region 2
G.P.O. Box 1306
500 Gold Avenue, S.W.
Albuquerque, New Mexico 87103 (USA)
O: (505) 766-8062

Dr. David Wesley
Field Supervisor
Jacksonville Endangered Species Office
U. S. Fish and Wildlife Service
Jacksonville, Florida (USA)

Ross Witham - Consultant
Director, Research Laboratory
Florida Department of Natural Resources
Jensen Beach, Florida 33457 (USA)
O: (305) 334-1667
H: (305) 692-1469

9. Specialized Task Forces

a. Environmental Education

Chairman of Task Force
Dr. Robert E. Roth - Consultant

Molly Gaskin - Team Member

Maria Teresa Koberg - Team Member

Mario Boza
National Parks Foundation
Costa Rica

Greg Bruce
Georgia Sea Turtle Cooperative
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968
Ana Cecelia Chavez Quiros - Task Force Leader
for Costa Rica Participant

Robin Cross
Wildlife Division
Environmental Education Department
Trinidad and Tobago

Dr. Rosanne Fortner
School of Natural Resources
Division of Environmental Education
The Ohio State University
2021 Coffey Road
Columbus, Ohio 43210 (USA)

Marianela Rojas - Consultant
Ministry of Education
Costa Rica

Anne Shenk
Botanical Gardens
University of Georgia
Athens, Georgia 30602
O: (404) 542-1244

Susie Washington
Manager, Resources Management Program
The Banff Center
P. O. Box 1020
Banff, Alberta, Canada
(403) 762-6137

Michael Weber - Consultant

b. Legal Task Force

Roger W. Galvin, Chairman
Box 148
Rockville, Maryland 20850 (USA)
O: (301) 897-0896

Dorinda Dallmeyer - Consultant

Milton Kaufmann - Coordinator

Dr. Thomas Schoenbaum - Consultant

c. Fund Raising Task Force

Milton Kaufmann - Acting Chairman
O&H: (301) 948-1831

Elsa Jablonski (Invited)
O: (301) 365-5300
H: (301) 871-8956

Jamie L. Serino
100 8th Avenue, S.E.
St. Petersburg, Florida
O: (813) 896-8626
H: (813) 323-7615

Greg Bruce
Georgia Sea Turtle Cooperative
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968

10. Wider Caribbean Sea Turtle Conservation Network
Organized by: Country, Government Region, Respon-
sible Team Member, Country Coordinator, Country
Task Force and Other Country Sector Network Partici-
pants.

(1) Anguilla

John Fuller - Team Member

Dr. James I. Richardson, Director General, WIDECAST
de facto Team Member

(2) Antigua and Barbuda

John Fuller - Team Member

Dr. James I. Richardson, Director General, WIDECAST
de facto Team Member

Mr. Clare Roberts - Network Participant
Solicitor General, Ministry of Legal Affairs
St. John's, Antigua

(3) Bahamas

Rod Attrill - Country Coordinator
P. O. Box N10826
Nassau, Bahamas

Sally Ray Murphy - Team Member

Dr. Karen Bjorndal - Consultant

Colin Higgs - Network Participant
Department of Fisheries
Ministry of Agriculture, Fisheries & Local
Government
P. O. Box N 3028
Nassau, Bahamas
O: (809) 323-1014 or 5
323-1096 or 7

Susan Holoweski - Network Participant
Education Officer
The Bahamas National Trust
P. O. Box N-4105
Nassau, Bahamas

(4) Barbados

Molly Gaskin - Team Member

Dr. Wayne Hunte - Network Participant
Director, Bellaires Research Institute
St. James, Barbados, West Indies

Mary Mayo - Network Participant
"Villalina"
17 Clerpark
St. Michael, Barbados, W.I.

Hazel A. Oxenford - Network Participant
Biology Department
University of the West Indies
Cave Hill Campus
(809) 422-2087

or

Bellaires Research Institute
Hole Town
St. James, Barbados, W.I.

5) Belize

Dr. Nat Frazer - Team Member

Dora Weyer - Network Participant
P. O. Box 497
Belize City, Belize

Lionel Hereda - Network Participant
26 Regent Street, West
Belize City, Belize

Winston Miller - Consultant
Deputy Minister of Fisheries
P. O. Box 148
Belize City, Belize
O: (501) 44552
(501) 44708

Mrs. Waight - Consultant
Belize Audubon Society
P. O. Box 3
Belize City, Belize
(501) 2450

6) Bermuda

Sally Hopkins Murphy - Team Member

James Burnett - Herkes - Consultant
Assistant Director Fisheries
Department of Agriculture and Fisheries
P. O. Box 834
Hamilton 5, Bermuda
O: (809) 296-4201

David Wingate - Network Participant
c/o Aquarium Museum
Box 145
Flatts 3, Bermuda
H: (809) 298-1282

7) Brazil

Dr. James I. Richardson - Director General, WIDECAST,
de facto Team Member

Guy Marie Fabio Guagni Dei Marcovaldi - Consultant
Department de Parques Nacionais - IBDF-MA
SEN-ED, Palacio Do Desenvolvimento
12.0 ANDAR-Brasilia, D.F. Brazil
O: (55-61) 225-7517
O: (55-61) 225-3241
O: (55-61) 228-8125

8) British Virgin Islands

Dr. Nat Frazer - Team Member

Randolph Waters, Consultant
Fisheries Div., Department of Agriculture
Rd. Town, Tortola
British Virgin Islands, West Indies
Scott Eckert - Consultant
Karen Eckert - Consultant

9) Cayman Islands

Dr. Nat Frazer - Team Member

H. Orren Merren, III - Consultant
701 Washington Bldg.
15th Street & New York Avenue, N.W.
Washington, D.C. 20005 (USA)
(202) 347-4910 or

c/o Truman Bodden and Company
P. O. Box 866, Grand Cayman
Cayman Islands, BWI
(809) 94-92138

Dr. James Wood - Consultant
Research Manager
Cayman Turtle Farms, Ltd.
Box 645
Grand Cayman
Cayman Islands, BWI

Joseph Parsons - Consultant
Fisheries Officer
Agriculture and Natural Resources
Government Administration Building
Grand Cayman
Cayman Islands, BWI

(10) Colombia

Angelis Ruiz de Guevara - Team Member

Rod Mast - Consultant

Angela Mast - Network Participant
2208 Cathedral Avenue, N.W.
Washington, D.C. 20009
H: (802) 257-7751

June Marie Mow - Network Participant
Apartado Aereo 1182
San Andres (Isla)
Colombia

Arturo Moncaleano Archila - Consultant
INDERENA
Apartado Aereo 2459
Cartagena
Colombia

Jose Vicente Rodriquez
Chief, Land and Wildlife Division
INDERINA
Bogata, Colombia

(11) Costa Rica

Maria Teresa Koberg - Team Member

Dr. Douglas Robinson - Country Coordinator
Escuela de Biologia
Universidad de Costa Rica
San Pedro, San Jose
Costa Rica
O: (506) 24-35-36

Ana Cecilia Chaves
Task Force Leader
Asociacion Herpetologica de Costa Rica
c/o Escuela de Biologia
San Pedro, Costa Rica
O: (506) 37-23-90

Rafael Acuna - Network Participant
c/de Escuela de Biologia
San Pedro, Costa Rica
O: (506) 25-55-55

Mario Alvarado - Network Participant
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 26-73-53

Eduardo Alvarado - Network Participant
Fundacion de Parques Nacionales
Apdo. 236-1002
San Jose, Costa Rica
O: (506) 23-84-37

Fred Berry - Consultant

Gilberth Barrantes - Network Participant
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 37-80-15

Ing. Mario Boza - Network Participant
Director
Programa de Educacion Ambiental
Universidad Estatal a Distancia
Sabanilla, Costa Rica
O: (506) 25-89-21

Dr. Archie Carr - Special Scientific Advisor

Guillermo Canessa - Consultant
Departamento de Pesca y Vida Silvestre
Ministerio de Agricultura y Ganaderia
San Jose, Costa Rica
O: (506) 32-23-44

Sr. Juan Carlos Castro - Network Participant
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 54-17-47

Jorge Coto - Network Participant
Periodico La Nacion
San Jose, Costa Rica
O: (506) 35-12-11

Sr. Steven Cornelius - Network Participant
Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 24-35-36

Lic. Jorge Cortez - Network Participant
CIMAR
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 24-37-10

Ramiro Crawford - Network Participant
Programa de Educacion Ambiental
Universidad Estatal a Distancia
Sabanilla, Costa Rica
O: (506) 25-01-04
(506) 22-74-76

Winston Crawford - Network Participant
Gerente General
COOPEPESLA, R.L.
Apartado 159
Limon, Costa Rica
O: (506) 581965
H: (506) 580106

Guillermo Cruz - Network Participant
Caribbean Conservation Corporation
Apartado 6975-1000
San Jose, Costa Rica
O: (506) 25-22-06

Profesora Virginia Cruz - Network Participant
Apartado 681
Puerto Limon, Costa Rica
O: (506) 58-11-55

Roberto Chaverri - Network Participant
Instituto Costarricense de Turismo
San Jose, Costa Rica
O: (506) 23-17-33

Lic. Guido Fernandez - Network Participant
CINDE
San Jose, Costa Rica
O: (506) 33-17-11

Sr. Arturo Hall - Network Participant
Carniceria Super Gigante
Mercado Central
Puerto Limon, Costa Rica

Daniel Hernandez - Network Participant
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 26-51-62

Earl Junion - Consultant
Departamento de Pesca y Vida Silvestre
Ministerio de Agricultura y Ganaderia
San Jose, Costa Rica
O: (506) 31-23-44

Michael Kaye - Network Participant
Presidente
Costa Rica Expeditions
Apartado 6491 - 1000
San Jose, Costa Rica
O: (506) 22-03-33

Elaine Koberg - Network Participant
c/d Standard Fruit Company
Puerto Limon, Costa Rica
O: (506) 38-13-18

Xenia Lara - Network Participant
Presidente
Comision de Recursos Naturales
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica

Carlos Lizano - Consultant
Departamento Legal
Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Margarita de Martin - Network Participant
c/d JAPDEVA
Puerto Limon, Costa Rica
O: (506) 58-34-17

Dr. Alfonso Mata - Network Participant
Director
Centro de Investigacion en Contaminacion Ambiental
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 53-13-63

William Mona - Network Participant
Periodico La Nacion
San Jose, Costa Rica

Marck Protti - Consultant
Parque Nacional de Cahuita
Limon, Costa Rica

Reynaldo Maxwell - Consultant
JAPDEVA
Puerto Limon, Costa Rica
O: (506) 58-17-92

Dr. Donald Melton - Network Participant
Apartado 15
Quepos, Costa Rica
O: (506) 77-02-92

Yadira Mena - Network Participant
Jefe
Departamento de Educacion Ambiental
Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Gerardo Morales - Consultant
Departamento de Educacion Ambiental
Servicio de Parques Nacionales
Ministerio de Agricultura y Ganaderia
Ciudad
O: (506) 33-52-84

Lucrecia Monterroso - Consultant
Administradora
Parque Nacional de Cahuita
c/d Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Jose M. Mora - Network Participant
Presidente
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 25-55-55, ext. 746

Moises Mug - Network Participant
Comision de Recursos Naturales
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica

Dr. Manuel M. Murillo - Network Participant
Presidente CIMAR
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 24-37-10

Rodrigo Morera - Network Participant
c/o Caribbean Conservation Corporation
Tortuguero, Costa Rica

Dr. Abel Pacheco - Network Participant
Canal 6
San Jose, Costa Rica
O: (506) 32-92-55

Lic. Paula Palmer - Network Participant
Escuela de Puerto Viejo
Puerto Viejo, Talamanca
Limon, Costa Rica

Peter Philips - Network Participant
Escuela de Ciencias Ambientales
Universidad Nacional
Heredia, Costa Rica
O: (506) 37-41-51

Lic. Karen Olsen Beck - Network Participant
Presidente Ejecutivo
Asociacion Nacional pro Desarrollo de la Artesania
(ANDA)
Apdo. 4844 - 1000
San Jose, Costa Rica
O: (506) 25-71-71

Dr. Peter C. H. Pritchard - Team Member

Lic. Marianela Rojas - Consultant
Asesora en Ciencias y Matematicas
Ministerio de Educacion
San Jose, Costa Rica
O: (506) 23-16-66
(506) 37-60-63

Prof. Flor Rojas - Consultant
Ministerio de Educacion
San Jose, Costa Rica
O: (506) 23-16-66

Ing. Murray Silberman - Consultant

Lic. Ana Maria Tato - Consultant
Jefe
Departamento Legal
Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Christopher Vaughn - Network Participant
Escuela de Ciencias Ambientales
Universidad Nacional
Heredia, Costa Rica
O: (506) 37-41-51

Dr. Carlos Villalobos - Network Participant
Escuela de Biologia
Universidad de Costa Rica
San Pedro, San Jose
Costa Rica
O: (506) 25-55-55, ext. 851

Eduardo Zamora - Network Participant
Escuela de Ciencias Ambientales
Universidad Nacional
Heredia, Costa Rica
O: (506) 37-41-51

Sydney Walters - Network Participant
Radio Casino
Puerto Limon, Costa Rica
O: (506) 58-00-29

Ana Pereira - Network Participant
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 25-55-55, ext. 746

Juan Carlos Romero - Consultant
Administrador
Parque Nacional Tortuguero
c/d Servicio de Parques Nacionales
Ministerio de Agricultura
San Jose, Costa Rica
O: (506) 33-52-84

Carlos Sandi - Network Participant
Comision de Recursos Naturales y Medio Ambiente
de la Universidad Nacional
Universidad Nacional
Heredia, Costa Rica
O: (506) 37-32-57
(506) 25-84-73

Javier Rodriguez - Network Participant
Asociacion Herpetologica de Costa Rica
c/d Escuela de Biologia
San Pedro, Costa Rica
O: (506) 21-44-43

Organizaciones Colaboradoras:

Fundacion de Parques Nacionales
Sr. Alvaro Ugalde, Director Ejecutivo
Apdo. 236 - 1002
San Jose, Costa Rica
O: (506) 23-84-37

Asociacion Herpetologica de Costa Rica
Presidente: Jose M. Mora
c/d Escuela de Biologia
Universidad de Costa Rica
San Pedro, Costa Rica
O: (506) 25-55-55, ext. 746
Comision de Recursos Naturales y Medio Ambiente
Representante: Carlos Sandi
Apartado 236 - 1002
San Jose, Costa Rica
O: (506) 37-32-57

12) Cuba

Prof. Jorge Pinero - Team Member
Lic. Ricardo Mier Ayala - Consultant
Ross Witham - Consultant

Rene Marquez - Consultant
Fisheries Biologist
Apartado 695
Manzanillo Co. 28200
Mexico

13) Dominica

Peter Pritchard - Team Member

Gerry L. Aird - Network Participant
c/o H.H.V. Whitchurch and Company, Ltd.
Dominica Conservation Association
Roseau, Dominica, West Indies
O: (809) 445-2181
Telex: 8614DO

Marie-Jose Edwards - Consultant
Forestry Division
Botanic Garden
Roseau, Comm. of Dominica

Arlington James - Consultant
Forest Officer
Forestry and Wildlife Division
Botanic Garden
Roseau, Dominica
O: (809) 449-2731

14) Dominican Republic

Dr. James I. Richardson, Director General, WIDECAST
de facto Team Member

Prof. Jorge Pinero - Team Member

Jose Alberto Ottenwalder - Consultant

Merilio Morell - Consultant

Sixto Inchaustegui - Network Participant
Museo Nacional de Historia Natural
Plaza de la Cultura
Santo Domingo, Republica Dominicana

(15) French Guyana

Jacques Fretey - Team Member

Jacques De Agostini - Consultant
Le Delege Regional A L'architecture et
L'Environnement de la Guadeloupe,
Martinique, Guyana
Zone Industrielle Lauricisque
B. P. 1002 97178 Point-a-Pitre Cede
Dom. Casagola Morne-d'Union
Guadeloupe, French West Indies

Dr. Leon Sanite, Consultant
Directeur des Services Veterinaires
Avenue Pasteur
97300 Guyane Francaise

(16) Grenada

Molly Gaskin - Team Member

Dr. Peter Pritchard - Team Member

Dr. Melvin Goodwin - Consultant

Charles Frances - Consultant
Department of Agriculture, St. Georges
Grenada, West Indies

(17) Guatemala

Dr. James I. Richardson, Director General,
WIDECAST, de facto Team Member

Dr. Michael W. Dix - Network Participant
Universidad de Valle
Apartado Postal No. 82
Guatemala City, Guatemala, C.A.

(18) Guadeloupe

Jacques Fretey - Team Member

Patrick Roumieu, Consultant
Office National des Forets
Parc Naturel
Basse Terre, Guadeloupe, French Antilles

Eduardo Benito -Espinal - Consultant
Dept. de l'Architecture et l'Environnement
Zone Industrielle Lauricisque
B. P. 1002 97178 Point-a-Pitre Cede
Guadeloupe, French Antilles

Prof. Jacques Portecop - Network Participant
Centre Universitaire Antilles-Guyane
B.P. 592 97167 - Pointe-a-Pitre Cede
Guadeloupe (F.W.I.)
O: (596) 825806
824529
H: 850015

Robert L. Weinum - Consultant
Regional and General Councilor
Sous-Prefecture de Saint-Martin
Port Saint-Louis (Marigot)
97150 Saint-Martin (F.W.I.)
O: (596) 875036
875060
875004
H: 875260

Larocque Albert - Network Participant
L'Enclos Maison
Fabrasmane Gosier
97190 Guadeloupe
H: (596) 89-35-55

Pierre Barre - Network Participant
261 Residence Sablier
Rue des Cites Unies
97110 Pointe-a-Pitre
Guadeloupe (F.W.I.)

19) Guyana

Jacques Fretey - Team Member

Sibelle Hart Pritchard - Network Participant
401 S. Central Avenue
Oviedo, Florida (USA)
O: (305) 647-2615

20) Haiti

Dr. James I. Richardson, Director General, WIDECast,
de facto Team Member

Professor Jorge Pinero - Team Member

Jacques Fretey - Team Member

Professor Jorge Pinero - Team Member

Jacques Fretey - Team Member

Alan Baskin - Network Participant
P. O. Box 851
Port-au-Prince, Haiti, W.I.

Eva Cope - Network Participant
P. O. Box 851
Port-au-Prince, Haiti, W.I.

Roger Dunwell - Network Participant
Hotel Villa Creole
P. O. Box 126
Port-au-Prince, Haiti, W.I.

Michel Godefroy - Consultant
Assistant Chef des Relations Publiques
Office National du Tourisme
Port-au-Prince, Haiti

Edmond L. Magny - Consultant
Directeur - Adj. des Ressources Naturelles
Ministere de l'Agriculture, des Ressources
Naturelles et du Developpement Rural
Damian
Port-au-Prince, Haiti

Pierre Yves Roumain - Network Participant
Secrtaire Generale
Societe Audubon d'Haiti pour la
Protection de l'Environnement
P. O. Box 1311
Port-au-Prince, Haiti, W.I.

Dr. James Talbot - Network Participant
USAID/Port-au-Prince
Agency for International Development
Washington, D.C. 20523

Michel-Ange Voltaire - Consultant
Directeur General
Office National du Tourisme et des
Relations Publiques
Port-au-Prince, Haiti

(21) Honduras

Maria Teresa Koberg - Team Member

Mirna Marin - Consultant

(22) Jamaica

Prof. Jorge Pinero - Team Member

The Honorable Alan Isaacs - Consultant
77 Millsborough Avenue
Kingston 6, Jamaica, West Indies

Ann Haynes - Consultant
Natural Resources Conservation Department
53 1/2 Molyneux
KGN 10, Jamaica, West Indies

Stephen Hodges - Network Participant
Jamaican Natural History Society
P. O. Box 597
Kingston 10, Jamaica
O: (809) 944-2417

(23) Martinique

Jacques Fretey - Team Member

Jacques De Agostini - Consultant

Eduardo Benito-Espinal - Consultant

(24) Mexico

Georgita Ruiz de G. C. - Team Member

Dr. Peter Pritchard - Team Member

Rene Marquez - Consultant
Fisheries Biologist
Apartado 695
Manzanillo Co. 28200
Mexico

Lic. Ricardo Mier Ayala - Consultant

Jack Woody - Consultant
O: (505) 766-2036

David Bowman - Consultant
O: (505) 766-2036

(25) Montserrat

John Fuller - Team Member

Dr. James I. Richardson, Director General, WIDECast,
de facto Team Member

Dennis Gibbs, Network Participant
Member Montserrat National Trust
P. O. Box 479
Plymouth, Montserrat, W.I.

John Jeffers - Consultant
Government Fisheries Officer
Government of Montserrat
Montserrat, W.I.

Franklin Margetson - Consultant
Vice President, Montserrat National
Trust
Montserrat, W.I.

Franklin Michael - Network Participant
Director of Agriculture
Government of Montserrat
Member, Montserrat National Trust
Montserrat, W.I.
(809) 491-5297

Kenneth Starnes - Network Participant
P. O. Box 120
Plymouth, Montserrat, West Indies

Netherlands Antilles

Country Coordinators (Invited)

Dr. Walter L. Bakhuis,
Director CARMABI Piscaderabaai
P. O. Box 2090, Curacao
O: (599 9) 624242

Drs. John de Freitas
CARMABI Piscaderabaai
P. O. Box 2090, Curacao
O: (599 9) 624242

26) Netherlands Antilles - North

John Fuller - Team Member

Jo Vliegen - Network Participant
Bishop Road
Sint Martin, Netherlands Antilles
O: (599) 5-3021

27) Netherlands Antilles - South

Dr. Peter Pritchard - Team Member

(28) Nicaragua

Maria Teresa Koberg - Team Member

Argelis Guevara - Team Member

Jaime Incer - Consultant
Departamento de Servicios de Parques Nacionales
y Fauna Silvestre
Instituto Nicaraguense de Recursos Naturales y del
Ambiente
Hda. Sta. Irena Km. 12 1/2 Carretera Norte
Managua, Nicaragua

Milton Camacho - Consultant
Departamento de Servicios de Parques Nacionales
y Fauna Silvestre
Hda. Sta. Irena, Apartado 5123
Managua, Nicaragua

(29) Panama

Argelis Guevara - Team Member

Karen Christiana Figueres - Ritter - Network Participant

Vielka M. Garcia - Network Participant
Sociedad de Investigaciones Biologicas de la
Universidad de Panama
Panama City, Panama

Arizmendis S. Montoya - Escuela de Geografia
- Network Participant
Universidad de Panama
Panama City, Panama

Ernesto Weil (Invited) - Consultant
c/o Smithsonian Tropical Research Inst.
APO Box 2072
Balboa, Panama

(30) Puerto Rico

Dr. James I. Richardson, Director General, WIDECAST,
de facto Team Member

Prof. Jorge Pinero - Team Member

Paul Gertler - Consultant

Dr. Ariel Lugo - Consultant
O: (809) 763-3939

Dr. Manuel L. Hernandez-Avila - Network Participant
Director, Department of Marine Sciences
University of Puerto Rico
Mayaguez, Puerto Rico
O: (809) 832-3585
832-4042 X 3443

David Colon - Network Participant
Alternate Organizational Representative
Chelonia Society
Turabo University
Caguas, Puerto Rico

Sean Furniss - Consultant
Refuge Manager
U. S. Fish and Wildlife Service
Caribbean Islands National Wildlife Refuges
P.O. Box 510 Carr. 301 Kom. 5.1
Boqueron, Puerto Rico 00622-0510

Kathy Hall - Network Participant
Department of Marine Sciences
University of Puerto Rico
Mayaguez, Puerto Rico

Anastasia Kontos - Network Participant
(Dept. of the Interior, USFWS)
Mona Island
P. O. Box 3005
Marina Station
Mayaguez, Puerto Rico

John Taylor - Consultant
Refuge Manager
Culebra National Wildlife Refuge
Culebra, Puerto Rico 00645

Tony Tucker - Network Participant
Georgia Sea Turtle Cooperative Program
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)

Ruth Vallego - Network Participant
Organizational Representative
Chelonia Society
Turabo University
Caguas, Puerto Rico

31) St. Kitts-Nevis

John Fuller - Team Member

Ralph McDonald Wilkins - Consultant
Project Leader
St. Kitts Fisheries
Ministry of Agriculture
St. Kitts-Nevis, West Indies

Richard Lupinacci - Network Participant
Nevis, West Indies

Campbell Evelyn - Network Participant
P. O. Box 54
Basseterre
St. Kitts, West Indies

Rick Skerrett - Consultant
Basseterre
St. Kitts-Nevis, West Indies

32) St. Lucia

Molly Gaskin - Team Member

Paul J. Butler - Consultant
Conservation Advisor, Forestry Division
Ministry of Agriculture, Lands and Fisheries
Castries, St. Lucia, West Indies
O: (809) 23231

Gabriel Charles - Consultant
Forest Supervisor, Forest Division
Lands and Fisheries Department
Ministry of Agriculture
Castries, St. Lucia, West Indies
O: (809) 3231

Keith Nichols, Consultant
Fisheries Management Unit
Ministry of Agriculture and Fisheries
Manoel Street
Castries, St. Lucia, West Indies

Dr. S. J. Rickards, BVMS, MRCVS - Network Participant
St. Lucia Naturalists' Society
P. O. Box 783
Castries, St. Lucia, West Indies
O: (809) 2345

Horace Walters - Consultant
Chief Fisheries Officer
Ministry of Agriculture
Castries, St. Lucia, West Indies

33) St. Vincent

Molly Gaskin - Team Member

34) Suriname

Jacques Fretey - Team Member

35) Trinidad and Tobago

Molly Gaskin - Team Member

Dr. Carol James - Consultant
Zoologist and Head, Wildlife Section,
- Forestry Division
Ministry of Agriculture
Lands and Food Production
Long Circular Road
St. James, Trinidad, W.I.
O: (809) 622-4521
622-5214
622-7476
622-2367
H: 623-5941

Bheesham Ramdial - Consultant
Forestry Division
Long Circular Road
St. James, Trinidad, West Indies

Karlynn Shephard - Network Participant
The Point-a-Pierre Wild Fowl Trust
18 Grove Road
Valsayn North
Trinidad
O: (809) 662-4040

(36) Turks and Caicos

Sally Murphy - Team Member

Rod Attrill - Country Coordinator

John Fletemeyer - Network Participant
PRIDE, Nova University
Ft. Lauderdale, Florida (USA)

(37) USA (Atlantic and Gulf Coasts)

Sally Murphy - Team Member

Ross Witham - Consultant

Jack Woody - Consultant

Anastasia Kontos - Network Participant
Georgia Sea Turtle Cooperative Research Program
Institute of Ecology
University of Georgia
Athens, Georgia 30602 (USA)
O: (404) 542-2968

Ila Loetscher - Network Participant
Director
Sea Turtles, Inc.
P. O. Box 2575
South Padre Island, Texas 78597 (USA)
O: (512) 350-4214

Jorge E. Picon - Consultant
Special Agent
U. S. Department of Interior
Division of Law Enforcement
P. O. Box 61069
DFW Airport, Texas 75261 (USA)

Norine Rouse - Network Participant
Director, Norine Rouse Scuba Club
4708 N. Dixie Highway
West Palm Beach, Florida 33407 (USA)
O: (805) 844-2466

Don and Karen Stearns - Network Participants
1625 Douglas
Riverdale, Michigan 48877 (USA)
O: (517) 235-6170

38) U.S. Virgin Islands

Dr. Nat Frazer - Team Member

Scott-Eckert - Consultant
O: (404) 542-2968

Karen Eckert - Consultant
O: (404) 542-2968

Ralf H. Boulon - Consultant
Department of Conservation and Cultural Affairs
Division of Fish and Wildlife
Government of the Virgin Islands of the U.S.
101 Estate Nazareth
St. Thomas, Virgin Islands 00801
O: (809) 775-3620

Tom Adams - Network Participant
Distillery Manager, Cruzan Rum Industries
Frederiksted, St. Croix, USVI 00840

Senator Virdin Brown - Network Participant
P. O. Box 477
St. Thomas, USVI 00801
O: (809) 774-6484

Sean Furniss - Consultant
Refuge Manager
U. S. Fish and Wildlife Service
Caribbean Islands National Wildlife Refuges
P.O. Box 510 Carr. 301 Km. 5.1
Boqueron, Puerto Rico 00622-0510

Catherine A. Huntington - Network Participant
5080 D Rhodes Avenue
Santa Barbara, California 93111 (USA)
H: (805) 964-4470

Senator Sydney Lee - Network Participant
Box 130, Christiansted
St. Croix, U.S. Virgin Islands
O: (809) 773-3105

Dr. David Nellis - Consultant
Division of Fish and Wildlife
Government of the Virgin Islands of the U.S.
101 Estate Nazareth
St. Thomas, Virgin Islands 00801
O: (809) 775-3620

Otto Tranberg - Consultant
Senior Conservation Law Enforcement Officer
Dept. of Conservation and Cultural Affairs
111 Watergut
Christiansted, St. Croix, USVI 00820

39) Venezuela

Dr. Peter Pritchard - Team Member

Alfredo Paolillo, Network Participant (Invited)

Pedro Trebbau - Network Participant
Lagunita Country Club
Cuinta Maruria
Caracas, Venezuela

(Proposal modified by Monitor International
May 1, 1986. Modification is non-substantive)

WIDECAST/MONITOR INTERNATIONAL

Proposal

PROJECT PROPOSAL 33 (APCEP 6/1)

APPROVED FOR FUTURE IMPLEMENTATION DURING THE 1985-1986 BIENNIUM
by the
THIRD INTERGOVERNMENTAL MEETING ON THE ACTION PLAN FOR THE
CARIBBEAN ENVIRONMENT PROGRAM

Cancun, Mexico, 24-26 April, 1985

- 1.1 Title of Project: Sea Turtle Section of APCEP 6/1:
Project to promote the survival and recovery of endangered, threatened and vulnerable sea turtles in the Caribbean Region through (1) assessment of present threats and protection and (2) assistance to national governments in developing strategies for their preservation.
- 1.2 Geographical Scope: Antigua and Barbuda, Bahamas, Barbados, Belize, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, France, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Netherlands, Netherlands Antilles, Panama, St. Christopher and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, United Kingdom, United States of America, and Venezuela.
- 1.3 Implementing Organizations: Wider Caribbean Sea Turtle Recovery Team (WIDECAST), Monitor International (its Lead Organization), with the assistance of the International Union for the Conservation of Nature and Natural Resources and the WIDECAST NGO Consortium, in co-operation with all governments in the Wider Caribbean.
- 1.4 Duration of Project: 36 months
- Commencing August 1986
Completion July 1989

Attachment 1

1.5 Objectives:

1.5.1 Short-Term Objectives:

- (a) To determine status of all endangered, threatened and vulnerable species of sea turtles in the Wider Caribbean Region.
- (b) To identify the major causes of the sea turtle mortality in the Region.
- (c) To assess the effectiveness of existing protection of sea turtles in the countries of the region.
- (d) To develop implementing measures for sea turtle population recovery and conservation in co-operation with Wider Caribbean Countries.
- (e) To assess the role of sea turtles in the economics of Wider Caribbean nations and suggest ways and means for ensuring that this role can be enhanced and sustained in the future.

1.5.2 Long-Term Objectives:

- (a) To develop and implement good management practices for the recovery and conservation of endangered, threatened and vulnerable species of sea turtles in the Wider Caribbean Region.
- (b) Provide a demonstration project relevant to full implementation of APCEP 6/1.

1.6 Legislative Authority:

UNEP/CEPAL/IG.27/3, appendix II, para. 3, "Surveys to determine the status of endangered, threatened and vulnerable species in the Caribbean Region and development and implementation of measures for their conservation" has been accorded priority for implementation; UNEP/IG.42/3, Annex II, added APCEP 6/1 to the Priority Programme.

The project proposal is primarily relevant to APCEP 6/1 as well as APCEP 1/3, APCEP 4, APCEP 19 -- Maintenance of wildlife habitat, APCEP 36, APCEP 13/1, APCEP 13/3. As a cost-effective, innovative demonstration project, it is relevant to all endangered species in APCEP 6/1 and other regional seas programmes. All WIDECAST Team Members and its 150 element supporting Wider Caribbean Sea Turtle Conservation Network volunteer their time.

It is in consonance with the CAP high priority objectives of developing a regional manpower base, environmental education and support for strengthening environmental non-governmental organizations.

"REPORT OF THE MEETING OF NON-GOVERNMENTAL CARIBBEAN CONSERVATION ORGANIZATIONS ON LIVING RESOURCES CONSERVATION FOR SUSTAINABLE DEVELOPMENT IN THE WIDER CARIBBEAN 26-29 AUGUST 1981"

This meeting was sponsored by the Canadian International Development Agency, the Caribbean Conservation Association, the IUCN and UNEP. It was also the annual meeting of the Caribbean Conservation Association. The report of the meeting stated: "Management of Natural Resources. The participants reinforced the concepts of genetic resources as stated in the World Conservation Strategy (WCS) and the need for maintaining life support systems. A specific recommendation for the establishment of a wider Caribbean sea turtle recovery plan was approved in this context (see full text in Annex 4)."

"Annex V

Recommendation for a Wider Caribbean Sea Turtle Recovery Action Plan

The relevant NGOs should prepare a Wider Caribbean Sea Turtle Recovery Action Plan in coordination with the IUCN SSC Sea Turtle Specialist Group who would be asked to serve as a scientific advisory committee in support of the plan. The Recovery Plan should be consistent with the strategy for Conservation of Living Marine Resources and Processes in the Caribbean Region, the World Conservation Strategy and the Action Plan for the Caribbean Environmental Programme. Specific action in the plan would include those identified in the World Sea Turtle Conservation Meeting (see Turtle Action Plan and IUCN Programme)."

"Conservation Strategy and Action Plan (World Conference on Sea Turtle Conservation), Biology and Conservation of Sea Turtles," 1982, Smithsonian Press, calls for regional, cooperative planning for the conservation of sea turtles.

IUCN's Conservation Program 1985-1987, goal 1, objective 1.4, "to expand IUCN's work on conservation of marine species" (approved by IUCN General Assembly, Madrid 1984).

1.7

Background data

The six species of sea turtles in the Wider Caribbean Region are listed in the IUCN Red Data Book as endangered, threatened or vulnerable and are also so listed on the

corresponding CITES Annexes. They are also on the comparable lists of the (Bonn) Convention for the Conservation of Migratory Wild Animals and fall within protection for endangered species called for in the Western Hemisphere Treaty for the Protection of Nature.

The migratory nature of sea turtles requires international conservation planning and implementation as recognized in the Cartagena Convention, the Caribbean Action Plan, Convention on Trade in Endangered and Threatened Species of Fauna and Flora and the Convention on Conservation of Migratory Wild Animals. WIDECAST, an international, non-governmental team of eleven sea turtle scientists and experts, is preparing a Wider Caribbean Sea Turtle Recovery Action Plan. It is working in coordination with governmental and intergovernmental agencies and NGOs, throughout the Wider Caribbean Region. Its Lead Organization is Monitor International.

Through the IUCN Marine Conservation Program, the scientific and expert resource of IUCN's Commissions will be made available to the project.

The Marine Turtle Specialist Group of the Species Survival Commission, IUCN, serves as the Special Scientific Advisor. The UNEP Regional Seas Activities Center, the Caribbean Conservation Association, World Wildlife Fund -- USA, and other governmental agencies and NGOs are cooperating organizations.

It is supported (information and research) by a 150 element Wider Caribbean Sea Turtle Conservation Network, made up of both governmental and non-governmental entities and coordinates closely with the inter-governmental Western Atlantic Sea Turtle Symposium II (WATS). Its planning work is complementary to the scientific information compilation mission of WATS.

One purpose of the Project Proposal is to formalize the existing WIDECAST/Monitor International informal relationship with the Caribbean Action Plan by designating WIDECAST/Monitor International as Implementing Organization.

WIDECAST is scheduled to produce a comprehensive, detailed Wider Caribbean Sea Turtle Recovery Action Plan with 39 government region recovery action plan annexes, by the end of June 1988. The Sea Turtle Section of APCEP 6/1 will be developed in coordination with Wider Caribbean governments. It will be based on the parallel development of the WIDECAST Sea Turtle Recovery Action Plan.

WIDECASST and its supporting Wider Caribbean Sea Turtle Conservation Network is a prototype and demonstration model, which, if successful, will demonstrate a cost effective way of applying non-governmental scientific and expert volunteer human resources to assist governments with the overwhelming problem of conserving endangered species of fauna and flora. As a model, it may be relevant to implementing the remainder of APCEP 6/1.

The scope and objectives of the WIDECASST produced Wider Caribbean Sea Turtle Recovery Action Plan and the Sea Turtle Section of APCEP 6/1 are essentially congruent.

Much of the information required in WIDECASST'S plan preparation is essentially the same as that required for APCEP 6/1. This project proposal, if approved, will avoid redundancy and insure timely completion of an important portion of APCEP 6/1, a CAP project which urgently needs implementation.

Further, the project will significantly enhance WIDECASST's ability to produce a detailed and comprehensive Wider Caribbean Sea Turtle Recovery Plan which will be available to all governments.

1.8 Activities and Workplan

1.8.1 Activities

The eleven members of the International, non-governmental Wider Caribbean Sea Turtle Recovery Team with key consultants will continue to hold semiannual, 6-day meetings in the Wider Caribbean or sub-regional meetings. These meetings are used to further the development of the draft of the Wider Caribbean Sea Turtle Recovery Action Plan. If the proposal is approved, they will also be used to develop the Sea Turtle Section of APCEP 6/1. Five meetings have been held (the last in March 1985 in Guadeloupe). The Team collects information but does not do field research. Its mission is to collate existing information and prepare multi-disciplinary sea turtle conservation plans.

The Team became fully operational in January 1984 and is actively engaged in the preparation of the Wider Caribbean Sea Turtle Recovery Action Plan. WIDECASST started in August 1981 in the Dominican Republic.

The national sections of the Sea Turtle section of APCEP 6/1 prepared by the Wider Caribbean Sea Turtle Recovery Team will be submitted through UNEP as draft reports to the governments concerned. Upon receipt of the governments' clearance of the reports, they will become part of the final edition of the Sea Turtle Section of APCEP 6/1.

Project Implementing Organizations in this project will co-ordinate with the Implementing Organizations for the related CAP project on the protection of Mexican Sea Turtles (See ZONAS naturales protegidas (APCEP 6/1) Page 6, UNEP/IG.55/3) to avoid duplication and provide mutual informational support.

Liaison will be maintained and inputs will be solicited from government environmental officials.

It is envisaged that through (1) the Wider Caribbean Sea Turtle Conservation Network, (2) other local scientists, (3) other experts, (4) NGOs, (5) conservationists and (6) administrative structures, substantive assistance will be provided to WIDECAST (Team) and Monitor International the implementing organizations.

1.8.2 Workplan and Timetable

<u>Activity</u>	<u>Timetable</u>	<u>Responsibility</u>
Contract Signed	Aug 1986	UNEP
Designation of Wider Caribbean Governments' coordination officials to WIDECAST (Team)	Aug- Sept 1986	Government UNEP Focal Points for the Action Plan
75% of total funding for 1986 and 1987 paid to Monitor International (First Quarter).	Aug. 1986 Sept. 1986	UNEP
Designation by WIDECAST (Team) of Team members responsible for drafting country units of Sea Turtle Section.	Aug 1986	WIDECAST (Team)
WIDECAST (Team) members conduct liaison with Government Coordination officials and WIDECAST country task forces.	Oct 1986 April 1987	WIDECAST (Team) members
Remaining 25% of total funding for 1986 and 1987 paid to Monitor International (Second Quarter).	Oct. 1986 Dec. 1986	UNEP
Progress Report submitted to UNEP.	31 Oct 1986	Monitor International/ WIDECAST (Team)

<u>Activity</u>	<u>Timetable</u>	<u>Responsibility</u>
Collection, collation and evaluation of sea turtle recovery and conservation information from country and non-country sources and preparation of drafts of country units of Sea Turtle Section of APCEP 6/1. Submission to UNEP. ¹	Jan. 1987 Dec. 1988	WIDECAST (Team members assisted by WIDECAST country and other Network components and IUCN (staff and commissions)
Progress Report submitted to UNEP	31 March 1987	Monitor International/WIDECAST (Team)
Progress Report submitted to UNEP	31 Oct 1987	Monitor International/WIDECAST (Team)
Progress Report submitted to UNEP	31 March 1988	Monitor International/WIDECAST (Team)
Progress Report submitted to UNEP	31 Oct 1988	Monitor International/WIDECAST (Team)
Submission to each government of WIDECAST (Team) prepared country unit management recommendations for that country, to obtain clearance to publish. ²	Jan 1989	UNEP
Progress Report submitted to UNEP	31 March 1989	Monitor International/WIDECAST (Team)

-
1. Each country unit consists of WIDECAST (Team) Sea Turtle recovery conservation management recommendations to each countries government.
 2. When requested to do so by a government, WIDECAST (Team) will append to the draft as footnotes or appendices any preferred alternative wording or statements referring to specific portions of the text. Government provided clearance to publish does not necessarily constitute government indorsement of the contents.

<u>Activity</u>	<u>Timetable</u>	<u>Responsibility</u>
Final edition of Sea Turtle Section of APCEP 6/1 to the printer. ³	April 1989	WIDECAS ^T (Team)
Publication and Distribution	May 1989 July 1989	WIDECAS ^T (Team)
Final Report submitted to UNEP	31 July 1989	Monitor Inter- national/WIDECAS ^T (Team)

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3. As soon as WIDECAS^T (Team) completes a country unit it will be sent to the subject country for clearance to publish. All such actions by WIDECAS^T (Team) are to be accomplished by January 1989.

1.9 Outputs and their use:

The Sea Turtle Section APCEP 6/1 will contain 29 Wider Caribbean government unit sea turtle recovery action management recommendations which will be available for immediate management decision by governments in the region.

The project will result in an improved Wider Caribbean Sea Turtle Recovery Action Plan, also being prepared by WIDECAST, made available to all Wider Caribbean governments and interested non-governmental organizations. This comprehensive plan may be used as a reference document for the Sea Turtle Section of APCEP 6/1.

The Sea Turtle Section of APCEP 6/1 will provide specific, action-oriented implementation measures, to permit the recovery of overutilized, degraded sea turtle population resources.

The project will provide support to conservation programmes of individual states and territories by providing regional co-operation action. It is in consonance with the Caribbean Action Plan's major activity "development of Co-operative Activities for the protection of endangered and threatened species..." UNEP Regional Seas Reports and Studies No. 26, and is responsive to Article 10, Cartagena Convention.

It will enable WIDECAST to produce an NGO proposal for a Sea Turtle Management Annex for a draft Cartagena Convention Protocol Concerning Specially Protected Areas and Wildlife (Ref. Article 10, Cartagena Convention and Resolution 3, adopted by the Cartagena Convention Negotiating Conference, 1983).

1.10 Follow-up

WIDECAST (Team/Monitor International and IUCN) contemplate submitting a project proposal to be effective in 1987-1988 designed to provide requested assistance to governments who undertake implementation of the project's recommendations.

1.11 Prerequisites and Assumptions

Success of the project will depend on the co-operation of local experts and governments in all countries and territories of the Wider Caribbean region.

1.12 Budget

See attached appendix I.

Appendix 4.

Oceanus[®]

Volume 27, Number 3, Fall 1984

concerns

Protecting

Caribbean Waters:

The Cartagena Convention

concerns

Protecting Caribbean Waters: The Cartagena Convention

Since 1974, the United Nations Environment Program (UNEP) has been trying to protect the marine environment through its Regional Seas Program. Divided into 11 designated regions,* more than 120 of the world's approximately 130 coastal states are cooperating to reduce pollution and conserve living

* The Wider Caribbean, the Mediterranean, the "Kuwait Action Plan Region" (Persian Gulf), West and Central Africa, East Asian Seas, South East Pacific, South Pacific, Red Sea and Gulf of Aden, East Africa, South West Atlantic, and South Asian Seas.

resources. States in each region assess the quality of their marine and coastal environments, identify sources of environmental degradation, regulate activities actually or potentially causing pollution, manage living resources, and preserve rare species and habitats. This is accomplished by compiling "action plans" that outline areas of cooperation for each region and by adopting conventions that provide legal frameworks for the activities.

The Wider Caribbean Region includes the Gulf of Mexico, the Caribbean Sea, and

THE CHALLENGE:

Procuring uncontaminated water samples of:

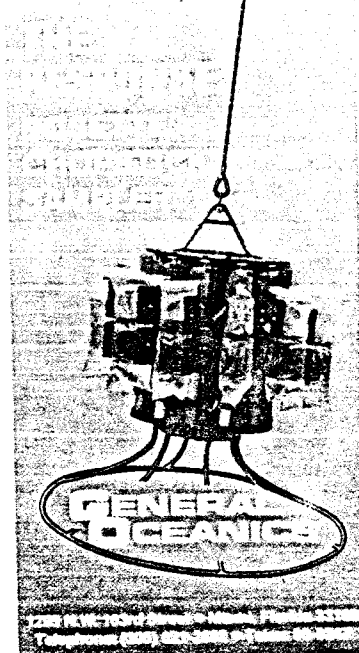
Suspended solids
Trace elements
Hydrocarbons
Pollutants
Metal ions
Microbes

In volumes of .5 to 30 litres, at any depth,

Using disposable bags made of:

Polyethylene
Laminates
Teflon

That are absolutely sealed before and after sample procurement.

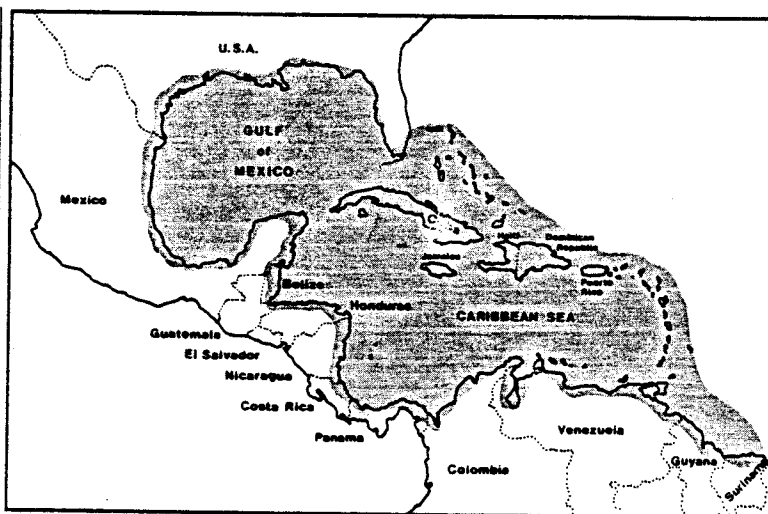


those parts of the western Atlantic within 200 nautical miles of the Bahamas and Florida (south of 30 degrees North), down to the northern border of Brazil (see map). States and territories within this region differ in their socio-economic and political systems, natural resources, and levels of development. Nevertheless, a number of environmental concerns transcend these differences.

The Caribbean's mangrove forests, sea grass beds, and coral reefs are important habitats for crustaceans, mollusks, and finfishes. At the same time, the clear waters and unspoiled beaches attract nearly 100 million tourists each year. Fisheries and tourism are extremely important to the Caribbean's small island nations as well as to larger nations with more diversified economies.

The Caribbean is not as polluted as the Mediterranean or Baltic, but there is reason for concern. Although petroleum reserves there have not been fully exploited, the Caribbean is criss-crossed by shipping lanes used to transport oil from the Middle East and Africa to the Americas. In addition, there are major refineries and storage facilities in the region. Recent development, spawned by local population growth and increased tourism, has led to increases in domestic sewage, upland erosion, and wastes from industry and agriculture. Thus, the beaches, reefs, mangroves, and sea grasses face effects of oil spills, siltation, and waste disposal. Any of these would damage the fisheries and destroy much of aesthetic value that makes the region attractive to tourists.

No one country can solve these problems on its own. Each would be jeopardized should its neighbors be unwilling or unable to cope with environmental contaminants. Recognition of this mutual dependence led representatives of 23 states* to adopt the "Action Plan for the Wider Caribbean," at Montego Bay, Jamaica, in April 1981. The plan outlines more than 70 steps to improve environmental



The Wider Caribbean Region includes all nations bordering the Gulf of Mexico or the Caribbean Sea, as shown by the shading above.

assessment and management, to train personnel required for such tasks, and to create institutional and financial arrangements to support the cooperative activities involved. It organizes tasks under nine headings: pollution control, coastal zones, fisheries, watersheds, natural disasters, energy, human settlements, tourism, and environmental health. Finally, it calls for the creation of a regional agreement to serve as a legal basis for cooperation.

The Convention

The legal agreement called for in the action plan was drafted and adopted by representatives of 16 states** at a conference in Cartagena de Indias, Colombia, on 24 March 1983. The

* Barbados, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, France, Grenada, Guyana, Haiti, Honduras, Jamaica, Mexico, the Netherlands, Netherlands Antilles, Nicaragua, Panama, St. Lucia, Suriname, Trinidad and Tobago, the United Kingdom, the United States, and Venezuela.

** Colombia, Costa Rica, Cuba, France, Grenada, Guatemala, Honduras, Jamaica, Mexico, the Netherlands, Nicaragua, Panama, St. Lucia, the United Kingdom, the United States, and Venezuela.

"Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region" (Cartagena Convention) has a three-tiered legal structure. First set forth are general goals, obligations, and guidelines for action throughout the Caribbean. Second are procedures for establishing protocols that will address cooperative approaches to specific problems, such as combating oil spills. Finally, both the Convention and its protocols may be supplemented by annexes of specific technical standards to be applied toward regulatory or cooperative activities.

Since protocols and annexes can be amended by simpler procedures than can the main Convention, this three-tiered structure permits relatively quick adjustment to changed conditions. The protocols also permit each party to distinguish between areas of greater or lesser concern. This is a boon for the developing island states since it permits allocating their scarce funds and skilled personnel to the most pressing environmental problems rather than having to spread them over a wide range of activities.

The Convention itself addresses the control of marine pollution from ships, ocean

dumping of wastes, la activities, and airborne emissions, as well as c and exploitation of n resources of the seab pledge to protect the environment, establis contingency plans for to incidents of serious assess the environme of new activities befo begun, exchange scie technical information common rules for ass environmental damag determining liability. Convention thus enco participants to coope dealing with a wide v. marine environmenta It also provides a fram within which the wea parties can help the n island states maintain improve their environ protection programs.

Through UNEF coordination of activi assured. Rather than c separate secretariat, t Caribbean states have designated UNEP to p documents for meetin coordinate activities, information, and ensu coordination of activi other international or such as the Internatio Maritime Organizatio

Provisions

The parties to the Car Convention will meet at least once every ot though a special mee called at any time. De the meetings have bro authority to assess the state of the marine en of the region, to adop or amend annexes to Convention (accordin specific procedures); recommend the adop protocols and amend; can adopt proposals f cooperative activities. provide a forum for e information and coord responses. They also their regularity, that a portion of the bureau each state party to the Convention will conti concern itself with the



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dumping of wastes, land-based activities, and airborne emissions, as well as exploration and exploitation of nonliving resources of the seabed. Parties pledge to protect the marine environment, establish contingency plans for responses to incidents of serious pollution, assess the environmental impacts of new activities before they are begun, exchange scientific and technical information, and frame common rules for assessing environmental damage and determining liability. The Convention thus encourages its participants to cooperate in dealing with a wide variety of marine environmental problems. It also provides a framework within which the wealthier parties can help the many small island states maintain and improve their environmental protection programs.

Through UNEP, coordination of activities is assured. Rather than creating a separate secretariat, the Caribbean states have designated UNEP to prepare documents for meetings, coordinate activities, disseminate information, and ensure coordination of activity with other international organizations, such as the International Maritime Organization.

Provisions

The parties to the Cartagena Convention will meet routinely at least once every other year, though a special meeting can be called at any time. Delegates at the meetings have broad authority to assess the general state of the marine environment of the region, to adopt, review, or amend annexes to the Convention (according to specific procedures); they can recommend the adoption of protocols and amendments, and can adopt proposals for cooperative activities. Meetings provide a forum for exchanging information and coordinating responses. They also ensure, by their regularity, that at least some portion of the bureaucracy of each state party to the Convention will continue to concern itself with the

environmental affairs of the region.

As is becoming more common in treaties on technical subjects, regional economic organizations are allowed as parties if their authority extends to matters covered by the convention. The European Economic Community and the Caribbean Community were invited to the Cartagena Conference; however, these organizations do not have rights of participation equal with states. They may vote only when the subject is in their area of authority, and when they do vote, regional organizations have votes equal to the number of their members party to the Convention. Members of a regional organization do not vote individually if the organization votes as a whole. In this way, the Cartagena Convention accommodates the tradition that states are the only entities with full rights and duties under international law, and the new

importance of certain other entities in international affairs.

Two provisions of the Convention may cause some consternation among environmentalists. First, each state has 90 days to decide whether to accept any new annex or amendment. An amendment will come into force only for those states that approve it; an objecting government is neither bound by, nor can it gain any right from, an annex or amendment to which it objects. However, a state may change its mind at any time and accept the new annex or amendment. This raises the possibility of different rules within the region. Many environmentalists are likely to be discouraged by this, but governments insist on their freedom from outside authority. The result may be adoption only of those annexes or amendments most parties already agree are needed.

All financial rules (including the difficult question

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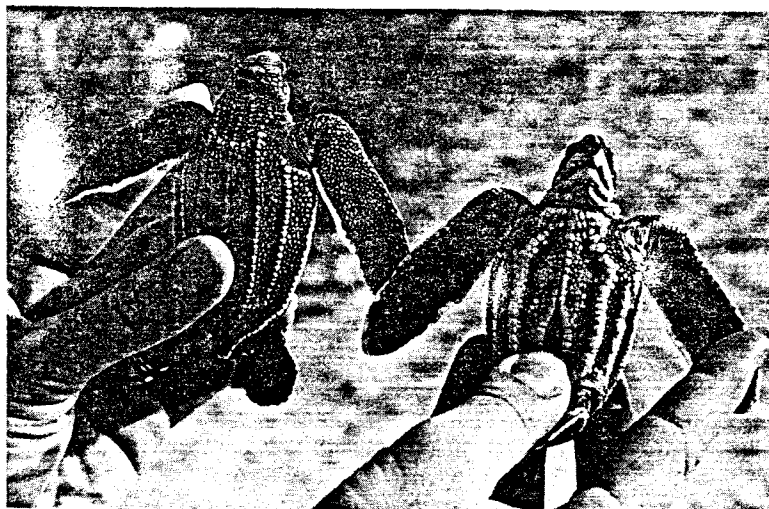
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South San Francisco, CA 94080
Phone (415) 583-9845

of how much each party will contribute to the budget) and rules of procedure for meetings must be adopted unanimously. This means that one government can frustrate the others by holding out on budget questions.

The unanimity rule will probably disturb environmentalists because it tends to strengthen the position of those favoring low levels of cooperation. True, a party desiring a higher level of cooperation could veto a program. However, the result of a veto is no program (or no new program), an outcome closer to a low level of cooperation than a high one. Thus, threats to veto programs specifying more cooperation than desired are more plausible than threats to veto those specifying a lower level. Happily, though, the records of other small international bodies (for example, the Antarctic Treaty Consultative Parties and the European Economic Community) show that a unanimity rule need not be the death of cooperation.

At present, the Cartagena Convention is supplemented by only one protocol. The "Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean," designed to protect the regional marine and coastal environment from oil spills, calls for the development of contingency plans and other cooperative measures. The contracting parties wisely recognize that islands, due to the fragility of their ecosystems and economic dependence on tourism, are particularly vulnerable to the threats imposed by oil exploration, production, refining, and transportation activities. This protocol also covers (via a specific annex) hazardous substances other than oil until specific protocols are written for other contaminants.

Governments in the region expect that other protocols will be needed. Resolutions adopted at Cartagena called for the preparation of draft protocols on land-based sources of marine pollution and on specially protected areas and wildlife. In



Development also poses indirect threats to Caribbean wildlife. Baby sea turtles may become disoriented by electrical lights in their attempt to find the sea after emerging from nests on beaches near towns, factories, or resorts. (Photo by Scott A. Eckert)

each case, UNEP was requested "to convene, if called upon to do so by a meeting of the Contracting Parties, as soon as is practicable after entry into force of the Convention, a working group of experts nominated by the Contracting Parties and Signatories to prepare a draft protocol." In the resolution calling for a draft protocol on specially protected areas and wildlife, non-governmental organizations (NGOs) were encouraged to prepare proposals for submission. This reflects a trend toward recognizing the expertise of NGOs in environmental matters.

Ratification

The Cartagena Convention will enter into force for those states accepting it 30 days after the ninth ratification. The Reagan Administration, which strongly supports ratification, submitted the Convention to the U.S. Senate in January 1984 and hopes for ratification before the end of the year. The other signatories also are considering it, but none have yet ratified. When the Convention first comes into force, participation will be restricted to those states and regional economic organizations invited to the Cartagena Conference. Additional states or organizations from outside the

Caribbean area may participate in the future if three-fourths of the original parties agree.

The Convention and its protocols supplement the general rules on marine pollution negotiated at the Third United Nations Conference on the Law of the Sea (UNCLOS III). They permit the states of the wider Caribbean to adopt measures to protect their own resources. Political turmoil in the region has not yet affected the willingness of states to cooperate in environmental matters, nor should it be allowed to do so. Each government in the region stands to gain if cooperation continues, or to lose if it does not, irrespective of its political persuasion.

**Nat B. Frazer
and M. J. Peterson,
Research Fellows,
Marine Policy and Ocean
Management Center,
Woods Hole
Oceanographic Institution**

EDITOR'S NOTE: as we go to press, the US Senate has approved the Cartagena Convention.

SUGGESTIONS FOR PREPARING VOLS. 2-40 RECOVERY ACTION PLANS

Recovery Plan Outline Section

I. Introduction

This section should be a brief review of the country's historic relationship with sea turtles and their habitats. Example: Was it once an export center, major rookery or involved with various types of take? There should be a brief description of the current relationship. Example: Are there still nesting or foraging areas, trade in products or types of take?

II. Status and Distribution

This should be a brief technical description on which species are resident or transitory and which areas of the country are involved. Maps are helpful.

III. Stresses

This would be a brief description of the major factors affecting sea turtle populations in that country. The five factors in the outline can serve as a guide.

IV. Solutions

The outline identifies actions needed to solve these problems, from the general to the specific. Since the discussions in sections I, II, and III of Vols. 2-40 are brief overviews, a highly specific explanation of the problems should be made in Section IV. This could be in the form of one or two paragraphs on each subsection, followed by the particular steps needed to solve the problem. Example:

4.13. Prevent or mitigate degradation of nesting beaches where:

4.131. sand mining degrades nesting habitat.

The lack of raw materials for construction and the high cost of importing these materials into the country has led to the mining of beaches as a source of sand. North Beach and Shell Beach were mined two years ago and now show signs of sand being naturally replenished. South Beach has been listed as a source of sand by the Public Works Department, but Bird Beach has still not received such a designation. North and Shell Beach were previously used by leatherbacks, but the sand depth at those beaches is not sufficient at this time for them to nest. South Beach is used moderately by hawksbills, and Bird Beach has high density use by both species.

4.1311. Develop a management plan with the Public Works Dept. to prevent the removal of critical amounts of sand from South Beach.

4.1312. Monitor the accretion rate of sand on North and Shell Beaches and write management plans with the Public Works Department for their future rate of use.

4.1313. Work with the local Audubon Club to acquire and designate Bird Beach as a protected wildlife area for sea turtle nesting.

V. References

In this section, list the references used in preparing any part of the Plan, especially unpublished reports or local sources of information.

VI. Appendix

In the Appendix, list any education material or local groups that may contribute to sea turtle conservation.

THIRD DRAFT OF OUTLINE FOR
WIDER CARIBBEAN SEA TURTLE RECOVERY ACTION PLAN

- I. Introduction (3-5 pages) Dr. Nat Frazer
 - A. Statement of problem and importance
 - B. Review of various options for solutions
 - C. WIDECAST Recovery Action Plan as best solution
- II. Discussion of all Species and Distribution (with common names) (10-15 pages)
Dr. Peter Pritchard
- III. Stresses on Sea Turtles in Wider Caribbean Region (5-10 pages)
Sally Hopkins Murphy
 - A. Destruction or Modification of Habitat
 - B. Disease or Predation
 - C. Over-utilization
 - D. Inadequate regulatory mechanisms
 - E. Other natural or man-made factors
- IV. Solutions to stresses on sea turtles in WCR
 - 4.1 Manage and protect habitat
 - 4.11 Identify essential habitat
 - 4.111 Survey high use marine areas such as reefs and seagrass beds
 - 4.112 Survey nesting beaches (WATS)
 - 4.12 Develop area specific management plans for important beaches and foraging areas
 - 4.121 Involve local coastal zone entities at earliest planning stages
 - 4.122 Develop regulatory guidelines and/or regulations

- 4.123 Provide for enforcement of guidelines
- 4.124 Develop educational materials for each management area
- 4.13 Prevent or mitigate degradation of nesting beaches where:
 - 4.131 Sand mining increases, erosional problems
 - 4.132 Bright lights disorient hatchlings
 - 4.133 Beach stabilization structures destroy nesting habitat
 - 4.134 Beach cleaning equipment crushes nests
 - 4.135 Beach rebuilding projects smother nests
- 4.14 Prevent or mitigate degradation of marine habitat where:
 - 4.141 Dynamiting or reefs removes the coral substrate
 - 4.142 Use of bleach on reefs kills corals and other marine organisms
 - 4.143 Industrial discharges contaminate marine organisms used as food by turtles
 - 4.144 At-sea dumping of garbage or other substances contaminates the environment. (Garbage also causes direct mortality when ingested by turtles)
 - 4.145 Oil exploration, production, refining, transportation and dumping pollute the habitat
 - 4.146 Agricultural run-off contaminates marine organisms used as food by turtles
 - 4.147 Artificial seaweed is mistakenly ingested as food
- 4.2 Manage and protect all life stages
 - 4.21 Review existing local laws and regulations
 - 4.22 Evaluate the effectiveness of law enforcement
 - 4.23 Propose new regulations where needed to regulate take of:
 - 4.231 Eggs
 - 4.232 Nesting females
 - 4.233 Immatures
 - 4.234 Any species not under any current protection

- 4.24 Augment existing law enforcement efforts
- 4.25 Make fines commensurate with the value of the product
- 4.26 Investigate alternative livelihoods, other than taking sea turtles, for local residents
- 4.27 Promote the use of TED or other fishing methodologies to prevent incidental take
- 4.28 Supplement reduced populations through management techniques
- 4.29 Monitor stocks to determine status and/or trends in:
 - 4.291 Nests laid
 - 4.292 Hatchling production
 - 4.293 Relative number of immatures and adults
- 4.3 Encourage and support international legislation
 - 4.31 Encourage non-signatories to join CITES
 - 4.32 Encourage states to cooperate through other conventions such as Western Hemisphere or Migratory Species Convention
 - 4.33 Establish subgroups in consultation with the IUCN/SSC Marine Turtle Specialist Group
 - 4.34 Encourage states with common stocks of turtles to develop agreements for their management
 - 4.35 Ask groups such as IUCN and World Wildlife Fund to provide support and legal expertise to implement above steps
- 4.4 Develop public education
 - 4.41 Inform local people, particularly children, on the need to manage sea turtles in terms of local cultural values
 - 4.42 Develop campaign to educate tourists about endangered species laws concerning sea turtles
 - 4.43 Provide information on fishing methodologies to prevent incidental catch
 - 4.44 Encourage the non-consumptive use of sea turtles as a source of revenue (Ex. natural history expeditions to parks)

4.5 Increase information exchange

- 4.51 Make all government officials and biologists aware of existing information sources, such as the Marine Turtle Newsletter
- 4.52 Continue to support and encourage participation in WATS II
- 4.53 Provide all NGO's and local biologists with access to WIDECAST information
- 4.54 Seek support for a Caribbean bilingual newsletter
- 4.55 Promote distribution of the WATS Manual
- 4.56 Provide for workshops on research and management as "hands-on" supplement to WATS Manual
- 4.57 Promote exchange of information among local groups involved in turtles

V. References

VI. Annexes

6.1 Legal considerations

- 6.11 A guide to preparing draft laws for conservation and management of sea turtles; a discussion of "process" and 'criteria'
- 6.12 Examples of draft model laws for applicable judicial systems
- 6.13 A summary of national and international laws relevant to sea turtle conservation in the wider Caribbean region

6.2 Catalog of sea turtle conservation education

6.3 Catalog of international cooperative programs

- 6.31 Inter-governmental organizations
- 6.32 Non-government organizations
- 6.33 Government organizations

DRAFT

A Recovery Action Plan for Sea Turtles Inhabiting
Guatemala's Caribbean Coast

Prepared by

The Wider Caribbean Sea Turtle Recovery Team
and Conservation Network

INTRODUCTION

Guatemala's Caribbean shoreline is situated in the apex of the Golfo de Honduras and, as such, represents the most western extension of the Caribbean Sea. Along with its Caribbean neighbors to the north (Belize and Mexico) and east (Honduras), Guatemala shares a resource management responsibility for a significant portion of the Wider Caribbean and its sea turtle populations. The Golfo de Honduras contains extensive areas of reefs, hard bottom habitat, and seagrass beds suitable for foraging and sandy beaches supportive of sea turtle nesting requirements. It should be assumed that four species of sea turtle [hawksbill (Eretmochelys imbricata), green (Chelonia mydas), loggerhead (Caretta caretta), and leatherback (Dermochelys coriacea)] move regularly within the Golfo de Honduras in general and Guatemala's national waters in particular.

HISTORY

There are few historical records, but it may be assumed that sea turtles and their eggs have been harvested from Guatemala beaches and nearshore waters for as long as coastal peoples have been present. Guatemala does not figure in the accounts of early European explorers as a location where ships could provision their holds with green turtle, as the Cayman Islands have been so noted. Similarly, there are no recent records of large

assemblages of nesting females on Guatemalan beaches sufficient to support large-scale commercial harvest and international trade. Thus, sea turtles and their eggs have apparently been harvested in the past primarily for local consumption. Turtle meat has until recently been available in coastal areas, and turtle eggs could be purchased in cantinas and small grocery shops throughout the country. The source of marketed sea turtle products has never been clear, because sea turtles nest on both the Caribbean and Pacific coasts of Guatemala. Rail transportation has been available from the Caribbean port of Puerto Barrios to Guatemala City and the surrounding highly urbanized Southern Plateau since the beginning of the twentieth century, providing a means for shipping turtle eggs from the Caribbean to highly populated areas for at least the last 80 years.

PHYSIOGRAPHIC DESCRIPTION

Guatemala's Caribbean coast extends 75 linear km from its border with Belize on the west at the Rio Sarstun to its border with Honduras on the east at the Rio Motagua. Along this transect, the coastline wanders for 147 km, first along the Bahia de Amatique (97 km) with its numerous lagoons and estuaries and then along the magnificent sand beach that fronts the Golfo de Honduras (50 km) extending from Punta Manabique on the northwest to the mouth of the Rio Motagua on the southeast. Guatemala claims ²2100 km of offshore Continental Shelf. This is a shallow

area, generally less than 200 m in depth, with a soft bottom of sediments and marine grasses. There are no significant areas of reef or live bottom rocky topography, thereby permitting the extensive use of trawl rig bottom fishing for shrimp and ground fish within the area.

STATUS AND DISTRIBUTION

Existing records on status and distribution of sea turtles in Guatemala's Caribbean waters are scattered and largely the result of subjective interviews with local fishermen, but such records are all that exist and must suffice until quantitative data are obtained. There are at this time no research programs or stock assessment efforts in this area. Additional data need to be obtained by more frequent aerial surveys, foot patrols of priority nesting beaches, and surveys of incidental catch by the shrimp trawling industry.

A. Nesting Beaches

Recent ground surveys by T. Carr (Carr et al. 1982) and an aerial survey by F. Berry (WATS Proceeding) indicate the only available nesting habitat to be located from Punta Manabique (Cabo de Tres Puntas) to the Rio Motagua. Hawksbills, loggerheads, leatherbacks, and green turtles have all been reported nesting along this extended 50 km beach, but quantifiable data are not available (Carr et al. 1982). The hawksbill is considered to be the most common nesting species and the green the least common. Nesting trends for any of the four

species are unknown. A single aerial survey on 20 July 1982 located one false crawl unidentifiable to species and no nesting crawls (WATS Proceedings). In lieu of additional information, it should be assumed that nesting activity for all sea turtle species is low.

B. Foraging

There are no significant areas of reef or live bottom habitat within Guatemala's jurisdictional Caribbean waters, but the southern terminus of the extensive Belize reef system is barely 40 km from Guatemala's coast. Three tag recoveries of adult female green turtles from Totuguero (Costa Rica) indicate that mature greens do enter Guatemalan waters. The extent of foraging by juvenile greens on nearshore seagrass beds is unknown. Former Guatemalan turtle fishermen, active prior to the recent protection of sea turtles, identified the Bahia la Graciosa along the eastern shore of the Bahia de Amatique as a foraging area for loggerheads and greens from December to April.

PROTECTIVE LEGISLATION

The taking of sea turtles and their eggs was legal in Guatemala until quite recently. Now, harvesting and trafficking in sea turtles is prohibited by each of several national and international laws and conventions.

1. The Acuerdo Gubernativo (_____) of 17 February 1981 prohibits the capture, transport, or commerce of sea turtles.

This decree was published in El Diario de Centro America, Vol. 205(69), on 26 February 1981.

2. Decreto No. 1326 of 1981 prohibits all commerce in sea turtles. This decree adds protection for all sea turtles within Guatemala under the more general Ley General de Caza of 1970.

3. Guatemala is a Party to CITES (Convention on International Trade in Endangered Species of Wild Flora and Fauna) through Decreto No. 63-79 of 11 October 1979. Under this international law, any import or export of sea turtles or their products across Guatemala's national boundaries is prohibited.

4. Guatemala is a Party to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region. As such, Guatemala has agreed to cooperate in an international program for recovering and managing Caribbean sea turtle stocks.

STRESSES ON SEA TURTLES IN GUATEMALA

1. Destruction or Modification of Habitat

The 50 km nesting beach from Punta Manabique to Rio Motagua is isolated and undeveloped at this time. Roads are scarce or non-existent, with most transportation by boat along the oceanfront or by foot along the beach. Human population centers are small and isolated in a half dozen coastal villages.

Degradation of nesting beach habitat elsewhere is often associated with development, particularly the construction of beachfront buildings with its problems of disorienting night lights and beach stabilization structures, the use of motorized vehicles on the beach which causes compaction problems for nests and hatchlings, and construction-related problems such as sand mining and modifications damaging to dune nesting habitat. Guatemala should guard against future problems in this area of beachfront development by establishing management guidelines that mitigate deleterious impacts on nesting turtles and hatchlings.

Destruction of foraging habitats is a more immediate problem. Puerto Barrios and its vicinity is a growing industrial center for shipping and oil export. The Rio Sarstun, the Rio Dulce which drains Lago de Isabel and El Golfete, and the Rio Motagua are major transport mechanisms for agricultural and mining sediments, industrial wastes, pesticides, herbicides, and sewage pollution being carried to the coast. The Bahia de Amatique is shallow and has limited circulation, particularly within its smaller lagoons and estuaries. Contamination of sea turtle food items with chemical toxins, increasing turbidity of coastal waters from suspended solids and eutrophic phytoplankton blooms, and the blanketing of seagrass beds and foraging areas with deposited sediments are real problems that need to be quantified. There is no question that sea turtles of several

species are foraging in Guatemala and are being impacted by the above problems.

2. Disease or Predation

There is very little information on disease and predation of sea turtles within or associated with foraging and other offshore areas. The potential for disease caused by ingestion of contaminated food items in the Bahia de Amatique was mentioned in the preceeding section. Unless local sea turtle populations exhibit symptoms of disease, there is little that can be done. There is no indication that subadults and adult turtles in Guatemala waters are subjected to unusual predation rates and, similarly, there is no evidence of unusual predation of hatchlings dispersing through nearshore waters from the nesting beach.

Non-human predation of nesting females on the beach probably does not occur, but loss of eggs and emerging hatchlings should be expected. Particularly damaging on Caribbean beaches with moderate to low development are such wild fauna as Coatimundi (scientific name) or coyotes (Canis latrans). Worse yet is the damage caused by man's feral and unfenced domestic animals, particularly pigs and dogs. The beach serves as a highway for the movement of these feral animals, and the turtle nesting is concentrated so that discovery by feral predators is high. If nesting density is very low or dispersed, as is apparently the case in Guatemala, a significant proportion of nests may escape

predation because predators do not find enough eggs to concentrate their efforts. However, if nesting densities increase as a result of recovery efforts, the relative impact from wild and feral predators may increase. Control measures in such cases, given the dispersed nature of nesting along Guatemala's 50 km of sandy beach, can be very difficult.

3. Overutilization

Many, if not most, sea turtle stocks in the Wider Caribbean Region have been overutilized at some time during the last few hundred years, except in a few remote localities. Turtles nesting on Guatemala's Caribbean beaches probably are reduced from historical levels for the same reason, but records confirming this are not available. Eggs and nesting female sea turtles of all species have been taken legally until quite recently by coastal people moving on foot from village to village. There are no records of the number of turtles taken by artisanal fishermen (harpoons and tangle nets), either directly or incidental to other fishing efforts. Belizean fishermen claim that local Guatemalan fishermen take hawksbill turtles and eggs illegally from the remote southern reefs and keys of the Belizean reef system which extends within 40 km of the Guatemalan coast. This may indicate an important need for international cooperation among countries fronting the Gulfo de Honduras.

Just as predators usually respond directly to the availability of food, increasing the relative number of nests

depredated as the frequency of nesting turtles increases, so also is the case with overutilization of sea turtle stocks by man. The absolute take of sea turtles and their eggs by Guatemalan fishermen and coastal dwellers is probably low today because sea turtles nesting and foraging in Guatemala are uncommon. If and when international conservation efforts in the Caribbean succeed in recovering sea turtle population numbers, legal and illegal overutilization will increase accordingly. Current Guatemalan fishing regulations protect all sea turtles, but fisheries management authorities should expect political pressure to relax these regulations if the numbers of sea turtles increase. Any legalization of take must be supported by sound resource management concepts that are developed cooperatively by Caribbean nations sharing common responsibility for sea turtle populations in the area.

4. Inadequate Regulatory Mechanisms

Current Guatemalan law protects all sea turtles and their eggs at all times. We fully support such a comprehensive protection strategy in view of small and probably seriously diminished populations of all species in the entire country. The real problem, shared by virtually all nations, is inadequate law enforcement. Meaningful implementation of wildlife conservation law offshore and along remote beaches is prohibitively expensive and not within the financial and logistical means of government. Inadequate regulatory mechanisms must be strengthened through

other means.

The only real solution to protecting Guatemalan sea turtles is through the development of a national conservation ethic, as is being done for the Quetzal (Scientific name). People must care enough about sea turtles to support government regulatory efforts. There should be programs of environmental education aimed at all elements of Guatemalan society from children to adults. They must understand why protection is needed to recover the remnants of sea turtle populations in the Wider Caribbean. Of particular importance in any environmental education program are the special interest groups such as commercial fishermen, coastal villagers, tourists, and developers. Their understanding and support are essential.

5. Other Natural and Manmade Factors

Shrimping is an important industry in Guatemala. Associated with large-scale commercial shrimp trawling is the incidental capture and drowning of sea turtles. There has been much recent success with the development of a turtle excluder device (TED) for trawl nets. The device has been so successful in increasing the quality and quantity of the catch that it is now known as a trawler efficiency device, maintaining the "TED" acronym.

There are excellent opportunities for implementing the TED in the Guatemalan fishing industry through international cooperative efforts. Such efforts not only conserve sea turtles but also increase the efficiency and technology of the fishing

industry. Fishermen become involved in a conservation effort and better understand the recovery efforts being undertaken for sea turtles.

VI. SOLUTIONS TO STRESSES ON SEA TURTLES

4.1 Manage and Protect Habitat

4.11 Identify Essential Habitat

4.111 Survey high use marine areas such as seagrass beds and live bottom foraging areas. Seagrass beds can be mapped and their importance as foraging areas documented by underwater observation and by incidental and directed take statistics. Determine foraging areas for invertebrate feeders such as the loggerhead (Caretta caretta) by interviewing fishermen and observing incidental capture of turtles during commercial shrimping operations.

4.112 Survey nesting beaches in a quantifiable manner according to procedures outlined in the WATS Manual. Replicate surveys so as to identify nesting activity of all sea turtle species throughout a 12-month period.

4.12 Develop Area-specific management Plans for Important Beaches and Foraging Areas

4.121 Involve local coastal zone entities at earliest planning stages. Particular attention should be paid to local power base organizations (Puerto Barrios Port Authority), commercial enterprises (fishermen's co-operatives), and non-governmental groups, as well as federal agencies. Local coastal

zone entities, addresses, phone numbers, and key contact people are listed in Appendix (___).

4.122 Develop regulatory guidelines and/or regulations. These guidelines must have the input of the local coastal zone entities discussed in 4.121, or there will be very little chance for voluntary compliance.

4.123 Provide for enforcement of guidelines. This will be enhanced if there is a sense of involvement by affected parties.

4.124 Develop educational materials for each management area. Materials must clearly explain the reason for actions identified in the guidelines and the cooperative process by which the guidelines were developed. Parties affected by guidelines will be more inclined to comply if educational materials speak positively of the cooperative conservation effort or programs being implemented by the affected parties.

4.13 Prevent or Mitigate Degradation of Nesting Beaches

4.131 Sand mining from beaches for construction aggregate and landfill can lower elevations, cause flooding of nesting habitat, and exacerbate erosion. The problem of sand mining is particularly acute on isolated beaches of the Lesser Antilles, but local sand mining could occur in the future along Guatemala's coast and should be prevented or carefully controlled

before the practice becomes commonplace.

4.132 Bright lights on beaches disorient hatchlings and prevent them from dispersing to the sea. Lights are not yet a problem along Guatemala's undeveloped Caribbean Coast, but the problem will increase as tourist facilities and other coastal developments accumulate.

When such developments are planned, sea turtle management specialists should work in advance with architects and builders to position lights in an unobtrusive manner and screen glare. If disorientation is unavoidable, provide low retaining fences that will prevent movement of the hatchlings landward of the foredunes.

4.133 Beach stabilization structures destroy nesting habitat. Such structures include sea walls, riprap, jetties, and groins and are used to protect large, permanent structures (homes, hotels, coastal roads) constructed along a fluctuating shoreline. Beach stabilization structures prevent access by turtles to the nesting habitat and/or destroy the foredunes that provide nesting habitat. Permanent, immovable structures should be placed well back from a hundred year zone of potential erosion/deposition that has been carefully identified and mapped by coastal geologists.

4.134 Beach cleaning equipment crushes nests.

Beach cleaning equipment, such as tractors and sand filtering

equipment, can crush and disrupt sea turtle nests. The practice of beach cleaning occurs with ocean front resorts where the customers demand a clean swimming and sunning area. Mechanized beach cleaning with heavy equipment does not occur on the Caribbean coast of Guatemala.

4.135 Beach rebuilding projects smother nests.

Beach renourishment involves the replacement of sand to eroded shorelines by mechanical and/or hydraulic transport. Currently, beach renourishment does not take place in Guatemala.

4.14 Prevent or mitigate degradation of marine habitat where:

4.141 Dynamiting of reefs removes the coral substrate.

Dynamiting coral reefs is a highly destructive fishing practice used to stun reef fishes for easy capture. The practice could be employed by Guatemalan fishermen in the southern terminus of the Belizean reef system, but there is no evidence of this practice. Dynamite fishing on coral reefs should be prohibited at all times, as it destroys critical reef habitat. If dynamite fishing exists, the extent and location of the practice should be determined and an educational program established with the appropriate fishermen. Law enforcement on the extended reef system is probably not realistic at this time but should be encouraged.

4.142 Use of bleach on reefs kills corals and other marine organisms.

Bleach dispursed on coral reefs is used to incapacitate fishes by some fishermen. The practice is extremely damaging and wasteful, as a wide variety of unmarketable vertebrate and invertebrate marine life is killed. Juvenile fishes needed to replace depleted stocks are also killed. The extent of this practice in Guatemala needs to be determined and education programs should be set up to educate the fishermen as to the effects of this practice. The practice should be illegal, but again the ever present problem of law enforcement must be dealt with.

4.143 Industrial discharges contaminate marine organisms used as food by turtles.

Heavy industrial discharge can result in contamination of sea turtle's food sources. Currently there is not a significant amount of industry on Guatemala's Caribbean coast, thus this is not a problem.

4.144 At sea dumping of garbage or other substances contaminate the environment (or causes direct mortality when ingested by turtles).

While ingestion of refuse can cause mortality in sea turtles, it is unlikely that Guatemala is a large contributor to this problem.

4.145 Oil exploration, production, refining, transportation, and dumping pollute the habitat.

MORE INFO

4.146 Agricultural run-off contaminates marine organisms used as food by turtles.

MORE INFO

4.147 Artificial seaweed is mistakenly ingested as food.

Artificial seaweed is not used in Guatemala.

4.2 Manage and protect all life stages

4.21 Review existing local laws and regulations

MORE INFO

4.22 Evaluate the effectiveness of law enforcement

MORE INFO

4.23 Propose new regulations where needed to regulate take of:

4.231 Eggs

4.232 Nesting females

4.233 Immatures

4.234 Any species not under any current protection

4.24 Augment existing law enforcement efforts