

# Port Honduras Marine Reserve



## Annual Report 2004

**Submitted to: Belize Fisheries Department**

**Submitted by: Toledo Institute for Development and Environment**



*To promote the sustainable development of the Toledo District by fostering the efficient and effective management of its natural resources, conducting relevant research and by providing training and advocacy in order to preserve our natural heritage for present and future generations.*

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## **Words from the Manager**

Since obtaining its protective status in the year 2000, the Port Honduras Marine Reserve (PHMR) has made significant strides. It is my pleasure to present the 2004 Port Honduras Marine Reserve Annual Report which highlights activities conducted throughout the year.

This year, the PHMR staff made an extra effort to encourage communities to become more actively involved in PHMR activities. A Community Ranger Training Course was conducted which served to increase awareness among the buffer communities regarding PHMR and its regulations as well as to increase a sense of ownership in PHMR among community members. As a result of the training, the relationship among rangers, fishers and tour guides has also been strengthened.

Community members including fishers, students and tour guides also received training in scuba diving and research methods to enable them to assist the PHMR team in its research efforts. The training has led to been an increase in community awareness of the value of research and monitoring in protecting coral reef ecosystems and recognition of the threats to the resource.

The Caribbean Regional Environmental Programme Project was also launched. The project is participatory in nature and one of the main activities is to develop alternative livelihood strategies for communities.

This year, PHMR also received a new communication system comprising of base and hand held radios essential for effective patrols. A visitor entrance fee was also implemented for non-Belizean residents to the PHMR.

This report summarizes our achievements for the year 2004 and is dedicated to the many supporters who have assisted us in helping to conserve and transform the Port Honduras Marine Reserve into what it is today. Special thanks to the Fisheries Department, in particular, Mr. Alex Nolberto, the PHMR Advisory Committee, The OAK Foundation, AVINA, Caribbean Regional Environmental Programme , National Atmospheric and Administration Organization , United Nations Development Programme – Global Environment Facility/Small Grants Programme, The Wallace Foundation, The Nature Conservancy, Mesoamerican Barrier Reef Systems, United Nations Environment Programme and the Foundation for Environmental Solutions.

Special mention must be made to the villagers of Monkey River and Punta Negra and the rest of the TIDE team.

Dennis Garbutt  
Manager  
Port Honduras Marine Reserve

## **About TIDE**

The Toledo Institute for Development and Environment (TIDE) is a non-governmental organization (NGO) founded in September 1997 to meet the growing environmental and development needs of the Toledo District, the most southern district of Belize. The Toledo Institute for Development and Environment was conceived as a local initiative in response to the negative environmental effects from activities such as manatee poaching, illegal fishing, illegal logging and destructive farming methods.

## **TIDE's Goal**

The organization has been hard at work over the past six years to achieve its goal of improving organization's capacity to enable it to promote the protection and responsible management of Toledo's natural resources while simultaneously fostering programs that will create and promote sustainable alternative economic opportunities for resource users who have traditionally depended on these natural resources for their livelihoods. These alternatives accomplish two goals: instilling a sense of ownership in our common resources while conserving them for future generations.

## **Our Approach**

As part of its expansive conservation program, TIDE employs several conservation methods from natural and social sciences, which fall under five strategic objectives:

1. **Protected Areas Planning and Management**  
To protect conservation targets by promoting and leading the planning and management of protected areas in the target area.
2. **Promotion of Sustainable Development**  
To foster integrated conservation and development initiatives that generates opportunities for the residents and lead to the sustainable development of the target area.
3. **Research and Monitoring**  
To maintain the biodiversity and integrity of the ecosystems through continuous research, monitoring and appropriate interventions.
4. **Environmental Education and Outreach**  
To expand and enhance the knowledge base on target area's natural resources to promote its protection and sustainable use.
5. **Institutional Development**  
Improve TIDE's organizational capacity to accomplish its mission.

## **Where We Work**

Near to its inception, TIDE identified what is now known as the Maya Mountain Marine Corridor (MMMC) as a high priority conservation action site. The MMMC is a magnificent natural area covering almost one million acres of land and 1000 square miles of sea. The MMMC extends from the crest of the Maya Mountains in southwestern Belize to the southern end of the Belize Barrier Reef System. Within this area, the more significant conservation activities revolve around the efforts in Port Honduras Marine Reserve, Paynes Creek National Park and TIDE's Land Initiative.

## **TIDE's Organizational Structure**

Initially started by volunteers, TIDE has now grown to include the Executive Director who manages the organization and 29 other paid staff. The organization also has a policy making body – A Board of Directors – comprised of individuals from a wide cross-section of the society.

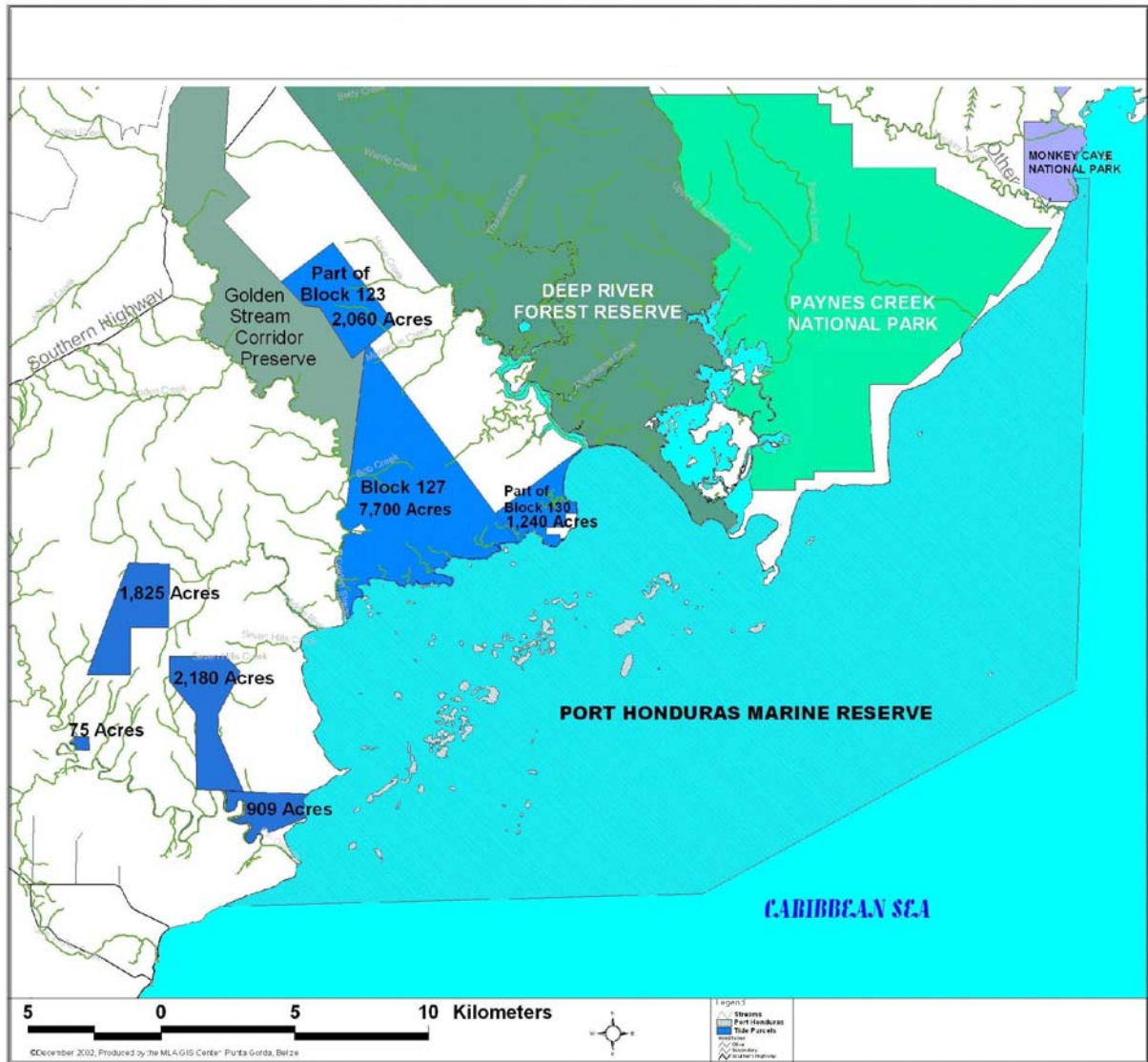
## **About PHMR**

### **Introduction**

The Port Honduras Marine Reserve was declared by the Government of Belize in January 2000. The PHMR is an integral part of the Maya Mountain Marine Corridor and is located in southern Belize near the coast just off Punta Gorda Town (Ganja Point) between Rio Grande Bar and Monkey River Village. It comprises all the coastal wetlands, sea, seabed, and National Lands within the area known as Port Honduras with general boundaries being Rio Grande in the South, Monkey River in the North, the Snake Cayes in the East and the coastal wetlands along the coast. This comprise of an area of approximately 160 square miles.

The Port Honduras Marine Reserve is rich in biodiversity containing, approximately 138 small mangrove cayes, which provide essential habitat and nursery for juveniles. Other critical habitats include sea grass beds, hard bottom communities, and the soft bottom communities. A large portion of the reserve is inhabited by the Seagrass, which also provide essential habitat and food for juveniles, sea turtle, crocodiles and the West Indian Manatee. Within the Port Honduras Marine Reserve are also fringing reefs and several coral patches and coral heads, which provide habitat for vertebrates and invertebrates.

There are two villages located in the Marine Reserve, Monkey River and Punta Negra Villages. These residents are mostly commercial fishers, tour guides, or fly-fishing guides who depend on the reserve for their income.



## Map of the Port Honduras Marine Reserve

### Reserve's Strategic Plan and Goals

The PHMR management strategy is based on five major goals:

1. To protect the physical and biological resources of Port Honduras.
2. To provide education and research
3. To preserve the value of the area for fisheries and other important genetic resources.
4. To develop recreational and tourism services that will enhance the economic and social benefits of the area without causing environmental damage.
5. To strive for sustainable financing

## **Zoning Plan and Regulations**

For the purposes of the regulation and control of the Reserve, five zones were established:

1. **General Use Zone (95% of the reserve)**  
To provide opportunities for established uses and activities (e.g. fishing for conch, lobster and finfish) under a stringent monitoring scheme
2. **Conservation I Zone**  
To provide an undisturbed area for recruitment of species to adjacent areas and to provide an area free from all research and collecting that will allow research and collection
3. **Conservation II Zone**  
To provide an area free from commercial fishing to prevent fishery stocks from over exploitation and to enhance the value of the area for recreational and tourism activities.
4. **Preservation Zone**  
To provide areas within the reserve that are preserved in an entirely natural state and to protect areas of particularly fragile habitat or with threatened or rare species.
5. **Special Management Area**  
Area reserved for special projects

## **Legal body responsible for establishing regulations and procedures**

Under the Fisheries Amendment Act of 1983, the Fisheries Department is *ultimately* responsible for the establishment and implementation of marine reserves. However, the Fisheries Department entered into a formal agreement for co-management of the PHMR with TIDE. Management of the reserve is delegated to a management committee that TIDE chairs. The role of the PHMR Advisory Committee includes: ensuring regular revision and review of the management plan, commenting on and recommending legislation and regulations, assisting in the development of sustainable financing mechanisms for the reserve and decisions relating to research to be conducted in the reserve. Under TIDE's leadership, the management committee has developed a division in roles and responsibilities, job descriptions and clarity over day-to-day management of the reserve's resources.

## **Staff**

The PHMR is staffed with a Manager, Dennis Garbutt, who is supported by a Head Ranger, and 3 full time rangers and temporary rangers. The staff conducts patrols to monitor activities within the different zones and reduce threats to the reserve such as gill net use, illegal fishing and over fishing. The rangers also enhance TIDE's public relations by conducting community meetings and play an active role in research activities being conducted within the reserve. Visitors to the ranger station are also oriented by the rangers on the reserve's educational display rules, facilities, and zoning areas. PHMR also has a full time marine biologist, Juan Chub.

### **Manager: Dennis Garbutt**

Mr. Garbutt has been very active in monitoring and research work in southern Belize. He is a certified dive instructor and has been involved with the baseline studies for PHMR. Mr. Garbutt also has training in engineering technology and directed numerous construction projects for TIDE, including the building of our two Ranger Stations. As the manager for the Port Honduras Marine Reserve, Mr. Garbutt is responsible for the daily activities within PHMR.

### **Marine Biologist: Juan Chub, Bsc**

Mr. Juan Chub joined the team in mid June 2004. Mr. Juan Chub brings experience from working with The Nature Conservancy (TNC), one of TIDE's partner NGOs in Belize. Mr. Chub is the Marine Biologist and is responsible for developing, coordinating and implementing the Toledo Institute for Development and Environment's research and monitoring programme at the Port Honduras Marine Reserve (PHMR).

### **Head Ranger: Carlos Ramirez**

Mr. Ramirez previously worked as a fisherman in Port Honduras, and brings experience in boat handling and knowledge of the reserve to TIDE. He is a certified advanced open water scuba diver and has also been active in monitoring and research and the daily patrols and surveillance within PHMR.

### **Ranger: George Sambula**

Mr. George Sambula joined the team in August 2003. Mr. Sambula is a native of Punta Gorda Town. He is active in the upkeep of the ranger station and daily patrols and surveillance as well.

### **Ranger: Leroy Ramclam**

Mr. Leroy Ramclam joined the PHMR team in February 2004. Mr. Ramclam is a resident of Cattle Landing Village and is a former commercial fisher. He brings to the team extensive practical knowledge of PHMR.



**Ranger: Leonardo Castro**

Mr. Leonardo Castro recently joined the team in October 2004. He has experience in boat handling from working with fishermen and researchers prior to working with TIDE. Mr. Castro is from Monkey River village and expresses much interest in learning and working with TIDE. He is also active in monitoring and research and the daily patrols and surveillance within PHMR.

**Ranger: Marlon Williams**

Mr. Williams also recently joined the team in October 2004. He recently graduated from the Toledo Community College in Punta Gorda Town. He also has excellent boat handling skills. He is a quick learner and also active in monitoring and research and the daily patrols and surveillance within PHMR.

*Temporary Rangers for 2004*

**Wilfred Muschamp – Monkey River Village**

**Edwardo Buchub – Punta Gorda Town**

**Roy Ramirez – Head Caye**

**Melissa Jacobs - Punta Gorda Town**

**Philip Gabriel – Punta Gorda Town**

**Victor Jacobs Sr. - Punta Negra Village**

**Clayton Garbutt – Punta Gorda Town**

**Jacklyn Young – Punta Gorda Town**

**Wallace Bardalez – Cattle Landing Village**

**Apolonio Westby – Punta Gorda Town**

**Dion Bennet – Cattle Landing Village**

**Roland Alford – Punta Gorda Town**

**Barry Bowden – Punta Gorda Town**

**Carlos Cofius – Forest Home Village**

## **PHMR Accomplishments 2004**

### **Patrols and Surveillance**

Daily patrols and surveillance were conducted throughout the year within the Port Honduras Marine Reserve by the PHMR staff, temporary rangers and community rangers. This year a total of 751 patrols were conducted between January – December 2004. These included day and night patrols, joint patrols with the Belize Police Department, the Belize Defense Force Maritime Wing and the Paynes Creek National Park rangers.

These patrols led to the confiscation of a total of 25 gill nets (15 gill nets in 2003), 5 long lines and 12 arrests. These arrests were as a result of fishers in possession of undersized lobster, harvesting conch and lobster out of season, fishing without a valid fishing license and unpaid duty on custom items.

In January 2004, 2 skiffs were taken to the Punta Gorda Customs Department where captains of both vessels were charged for unpaid custom goods.

On 14 September, 2004, PHMR rangers arrested Crestean Peraza for lack of a valid fishing license.

On 24 September, 2004 3 persons were arrested. Mario Saldivar was arrested in the vicinity of Tarpon Caye. Roy Gutierrez and Leroy Harry of Punta Gorda Town were arrested for having six undersized lobsters in their possession.

One gill net was confiscated in January 2004, 5 were confiscated in February 2004, 6 in July 2004, 6 in October 2004, 3 in November 2004 and 4 in December 2004.

### **Research and Monitoring**

During 2002 and 2003, a baseline study was conducted within the Port Honduras Marine Reserve to obtain information on the health of the ecosystems and to develop tools to monitor changes in resource populations. As part of the Baseline study, a Resource Value Assessment of the PHMR was concluded in 2004 that highlighted PHMR's goods and services and the value which people place on these.

In 2004, the PHMR staff continued with its objective of improving management of the reserve through research. Based on the results of the Baseline study, a methodology to assess the biological integrity of the reserve based on selected indicators was developed.

In 2004, data were collected on the following biological indicators which will be used to assess management effectiveness:

### *Water Quality*

Water quality within the PHMR is done on a monthly basis. There are 14 water quality-monitoring sites established within PHMR. Parameters measured includes Nitrates and Phosphates, Dissolved oxygen, Turbidity, pH, Temperature and Salinity. Permanent data loggers measuring salinity and temperature are presently installed in all fourteen sites.

### *Seagrass monitoring*

Seagrass monitoring is done twice per year, in June and December. Three sites within the PHMR are being studied and compared. These include West Snake Caye, Stuart Caye and Frenchman lagoon. Seagrass biomass, as well as seagrass community percentage composition is being monitored using core samples and belt transect quadrat techniques.

### *Mangrove monitoring*

Permanent monitoring sites for mangroves have already been established from the baseline surveys. Visual examination of threats is done in the field. Community composition is done once a year, and leaf litter fall is being done twice a year during peak and low litter fall.

### *Reef benthic monitoring*

Eight sites are being established within the PHMR for reef benthic monitoring. These include all four Snake Cayes, Wilson Caye, Frenchman Caye and two banks. Six permanent transect points are being established at each site. Last year data collection was done between May and July. This year data collection was done between October and December 2004. Methods of monitoring include characterization of coral community (coral health), coral recruitment, linear point intercept, *Diadema antillarum* counts and presence/absence coral diversity.

### *Fish monitoring*

Fish surveys are being performed in the same area as the benthic transects. Fish surveys methodology include the belt transect counts for defined species list and recruitment and the rover diver technique. Fish surveys are also being performed during reef benthic surveys.

### *Lobster and Conch monitoring*

Lobster and conch are being monitored during closed and open seasons. Lobsters are being monitored using rover diver techniques for species abundance, size structure, population structure and lobster timed effort. Conch are monitored using 4 transects at each site for species abundance, density and size structure.

### *Manatee, Dolphin and Sea turtle monitoring*

There is no comprehensive monitoring project in place for the monitoring of manatees, dolphins and sea turtle, however sightings of these species are regularly recorded and marked using GPS by PHMR rangers and Biologist.

Data collectors for research and monitoring includes: Marine Biologist, Juan Chub; PHMR Manager, Dennis Garbutt; PHMR rangers; TIDE's Freshwater Coordinator, Joseph Villafranco; Paynes Creek National Park manager, Mario Muschamp; interns from the University of Belize and from abroad and community members.

Socio-economic and governance indicators were also developed to assess management effectiveness. The results of the survey based on the indicators have been compiled in a report entitled "Socioeconomic impacts of the Port Honduras Marine Reserve on the coastal communities of southern Belize, Central America (1999-2004)' and a survey conducted" written by Emily Collins.

### *Other Research*

This year, Mr. Dennis Garbutt headed the team in January for spawning aggregation monitoring at the Sapodilla Caye Marine Reserve (SCMR). The monitoring team was also comprised of SCMR staff.

## **In the Community**

### **Support to Participatory Management of PHMR**

The Port Honduras Marine Reserve continues to receive support from the local communities within PHMR and other users of the reserve. Community members on several occasions reported illegal activity occurring within the reserve. These reports led to the confiscation of several gill nets and arrests. To enhance the effectiveness of community support in the management of PHMR, a three-day Community Ranger Training Course, sponsored by the United Nations Development Programme – Global Environment Facility/Small Grants Programme (UNDP-GEF/SGP) was held on the 22 to 24 of September 2004. The community ranger-training course included radio communication, Global Positioning System (GPS), and the rules and regulation concerning the National Park Systems Act, the Fisheries Act, and the Port Honduras Marine Reserve Statutory Instrument.

The community rangers received hand held radios in order to report to the PHMR rangers illegal activities occurring within the reserve.

### *Community Rangers*

1. Eloy Cuevas
2. George Garbutt
3. Kenworth Martin
4. George Ramirez
5. Oliver Garbutt
6. Alex Leonardo
7. Alexander Garbutt

### *Other Community Members*

1. Thomas Garbutt
2. Roberto Echavarria
3. John Young
4. Ovel Leonardo
5. Wallace Young

### **Involvement in Research**

To increase the participation of community members in TIDE's research and monitoring programme, in July, TIDE conducted a three-week training exercise in open water scuba diving, reef fish and coral identification and reef monitoring. The training course was funded by the United Nations Environment Programme – Caribbean Environment Programme. Participants included 6 TIDE staff members, 2 fishers, 3 students and 1 tour guide. To show their appreciation, some of these participants of the training are active in the ongoing research within PHMR.



**UNEP fish coral and reef monitoring trainees.**

## **Training**

To aid in the sustainable development of the Toledo District, TIDE also conducted training to provide community residents with the opportunity to support themselves financially through non-extractive enterprises. These courses included: fly-fishing (10 participants), birding (9 participants), hospitality (11 participants), kayaking (11 participants) and small business management (18 participants). The funds for the training were provided by The OAK Foundation, UNDP–GEF/SGP, AVINA, Caribbean Regional Environmental Programme (CREP) and ORVIS Fly-Fishing Company.

On Tuesday ,29<sup>th</sup> June 2004, the Meso-american Barrier Reef System (MBRS) Project also sponsored an open-water and advanced scuba diving training course for 10 local fishers.

## **Community Outreach and Education**

Several community meetings were conducted throughout the year as a part of TIDE's community outreach and education efforts. Formal and informal meetings were held at Monkey River village, Punta Negra Village, Cattle Landing Village, Forest Home Village, Punta Gorda Town and at TIDE's conference room in Punta Gorda Town.

In early February, the Caribbean Regional Environmental Programme (CREP) project was launched. The Caribbean Regional Environmental Programme is a regional (13 CARICOM states) sustainable development initiative authorized by the Caribbean Forum of African, Caribbean & Pacific States (CARIFORUM) through a Financing Agreement with the European Union. The overall objective of the Caribbean Regional Environmental Programme (CREP) is to enhance the contribution of natural areas of biodiversity and economic significance (Amenity Areas) to the sustainable development of the CARIFORUM Member States. Port Honduras Marine Reserve is on the two Amenity Areas selected for the country of Belize. The project is participatory in nature and one of the main activities is to develop alternative livelihood strategies for communities.



**Wil Maheia, TIDE's Executive Director, along with PHMR staff conducting a meeting in Forest Home Village.**

To increase awareness of the reserve and the work that is being put in place, several educational trips were sponsored to high school students and teachers. TIDE through funding from the UNDP GEF/SGP is hosting twenty field trips to the reserve for students and teachers. The field trips commenced on November 12, 2004 when a group of teachers from the Julian Cho High School in the Toledo District along with some students visited the reserve. On November 27, 2004, forty-four students and their teachers from the Toledo Community College visited the PHMR. The field trips served to complement in class presentations that focused on coral reefs. Students were also given the opportunity to snorkel and to identify the different types of corals found in the PHMR. The field trips will be conducted until May 2005.

## **Reaching Out**

The PHMR staff continue to reach out to the Punta Gorda community via “The Rising TIDE” radio show which airs once a week on Saturdays. The radio show provides a fast and efficient manner in which to capture a wide audience. During the shows, the PHMR manager was able to provide radio listeners with information about the rules and regulations of the reserve including the different activities which can be conducted within the different zones.

The TIDE website at [www.tidebelize.org](http://www.tidebelize.org) also provides another avenue to reach out to a wider audience. The website is updated periodically and an entire section is devoted to the PHMR with information about the reserve, activities occurring within the reserve and research reports.

TIDE also publishes a quarterly newsletter which is distributed to schools and local NGO's through the country enabling TIDE to share its experiences with the community.

The PHMR rangers also participated in the Independence Day, 21 September, parade activity. They participated in the float competition displaying a design of the PHMR ranger station.

During this year, TIDE held its Annual Fisherman's Festival on 20 – 21 November, 2004 which serves to promote the Toledo District. The PHMR rangers demonstrated scuba diving techniques to the attendees and also coordinated the Fishing Tournament. This year's fish fest was a huge success and lot of people from outside the Toledo District got the opportunity to learn about TIDE and Toledo.

## **Partnerships**

The Toledo Institute for Development and Environment continues to collaborate with local organizations on a number of projects to enhance efforts in preserving southern Belize's resources. This year, TIDE signed a Memorandum of Understanding with the TASTE (Toledo Association for Sustainable Tourism and Empowerment) to train Sapodilla Cayes Marine Reserve (SCMR) in water quality data collection methods. The SCMR and PHMR staff also engage in joint patrols. Joint patrols were also conducted with the Belize Police Department, Belize Defense Force and Belize Fisheries Department.

## **Institutional Development**

### **Major Training for staff in 2004**

- On the 31<sup>st</sup> of March 2004, Carlos Ramirez (Ranger for PHMR) attended a Manatee Training Workshop in Belize City that was sponsored by the CZMA&I. The workshop focused on procedures to rescue manatees and determine the cause of death. Mr. Ramirez was provided with a necropsy kit.
- On the 23<sup>rd</sup> and the 24<sup>th</sup> April 2004, Dennis Garbutt and Carlos Ramirez successfully completed a training in first-aid and CPR at the Punta Gorda Red Cross Branch.
- On May 9 – 14, Ranger Carlos Ramirez attended a ranger-training course at Belize City that was sponsored by the MBRS.
- On May 13 – 14, Manager/ Biologist, Dennis Garbutt attended a data entry training course for Mangrove and Seagrass in Belize City that was sponsored by the MBRS.
- In early June, a ranger training took place on law enforcement and report writing for all TIDE rangers including PHMR, PNCP and DNS rangers.
- The Caribbean Regional Environmental Program (CREP) sponsored a technical writing training course offered by the Belize institute of management to TIDE staff members in July 2004.



- On August 12, 2004, the Marine Biologist along with PHMR rangers and 2 UB students (participants from the UNEP training) participated in a reef check monitoring training conducted by Green Reef within the Port Honduras Marine Reserve.
- PHMR manager, Mr Dennis Garbutt, also conducted a boat handling training for all TIDE rangers in September 2004
- On September 17 and 18, 2004 TIDE's Marine Biologist (Juan Chub) attended coral resiliency training at the Coastal Zone training room in Belize City. The main objective of this training course was to train environmentalists from different organizations in reef resilience principles and apply these towards the design of a resilient MPA network. Outcome of the training included identifying potential resilient coral reef areas throughout Belize.
- PHMR manager, Mr. Dennis Garbutt went on a 2-week scuba diving instructor-training course in Belize City
- On November 11, 2004, Mr. Brian Young, from the Sea Horse Dive Shop of Placencia and Mr. Feliz from Fabrigas visited Abalone Caye to install the compressor and to train the PHMR staff in the safe operation of the engine and compressor and the maintenance of both.
- Juan Chub, PHMR marine biologist, attended a coral recruitment workshop in Akumal, Mexico that began on November 29, 2004 to December 4, 2004.

### **Infrastructure Development**

For the year 2004, the Port Honduras Marine Reserve bought 5 sets of dive gears, 1 underwater video and digital camera which will be used for effective research and monitoring within the PHMR. Because of the complication of filling dive tanks in Punta Gorda, a new compressor was also bought.

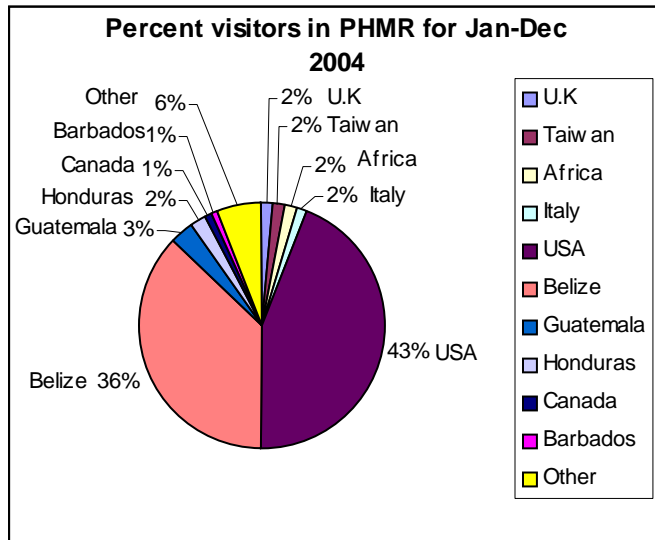
To enhance communications 15 new hand held radios, two base radios and 3 GPS were also bought.

The PHMR ranger station also received a refrigerator and more efficient solar panel and wind turbine with inverter and 2 motion sensor lights.

TIDE also received a 25 ft boat with 2 100 Yamaha 4 stroke engines through the CREP project, which is used for research, patrols and field trips.

## Visitors to PHMR

The total amount of visitors recorded in the PHMR visitor logbook was 726 for the year 2004, a little less when compared to the year 2003 (750). The largest amounts of recorded visitors in PHMR were from USA, Belize and Guatemala. There were visitors from other countries such as Greece, St. Lucia, France, Germany, Trinidad, Mexico, Argentina, Guyana, Costa Rica, Cuba, Denmark, El Salvador, Spain, and Jamaica, but represented as others because they represented minimal percent. The pie chart below shows percent visitors in PHMR from different countries.



The greatest numbers of visitors recorded were in March and August for the year 2004. The Toledo Institute for Development and Environment also sponsored several educational school trips to visit the Port Honduras Marine Reserve. This increased the number of Belizean visitors to the reserve.

## Reserve Fees

On 1 November 2004, a user fee was put in place for all non-Belizean visitors within PHMR. In November 2004, user fees collected totaled to \$1,280 for the sale of 64 tickets. For December 2004 a total of 102 tickets were sold. This totaled an amount of \$3320.00 generated for user fees within the reserve this year.

## **Setbacks**

There were several setbacks that were encountered during this year. The main ones were the threats being made to PHMR manager and staff. On two different occasions at the PHMR ranger station suspected Guatemalan gunmen, made some threats PHMR manager, Mr. Dennis Garbutt. Reports were made to the police department on this matter.

1. Potential Threat to Dennis Garbutt (Port Honduras Marine Reserve Manager), dated March 17, 2004;
2. Threat to Port Honduras Marine Reserve Manager – Dennis Garbutt (Second Incident), dated March 26, 2004.

In May 2004, rangers at Abalone Caye were also threatened by gunshots coming from unidentified persons. This matter was also reported to the Police Department. On Saturday, June 19<sup>th</sup> around 11:00 pm an attempt was also being made by unknown individuals to steal PHMR boat and engine.

## **TIDE Board of Directors**

Stanley Nicholas – Chairman - Dean of University of Belize, Toledo Campus  
Alistair King - Vice-Chairman - Local Businessman (Texaco & Fabrigas)  
Celia Mahung – Treasurer – Professor (University of Belize, Toledo Campus)  
Allen Genus – Secretary - Director of Operations, TIDE  
Robert Polonio – Local Fisherman and Tour Guide in Punta Gorda  
Eloy Cuevas –Fly-Fisherman and Local Tour Guide  
Sebastian Choco – Milpa Farmer  
Lyndon Bardalez - Local Businessman (Dick's Service Station)  
Elizabeth Enriquez – Manager (Punta Gorda Hospital)  
Gabriel Roches – Public Servant at the Ministry of Labor  
William Maheia - Executive Director, TIDE

## **TIDE staff**

TIDE currently has 30 full time paid staff members. It has grown significantly from 19 staff members in 2003 to 30 staff members this year. Our staff is as follows:

### ***Management Staff***

Executive Director: William Maheia, Msc  
Operations Director: Allen Genus, Bsc  
Science and Stewardship Director: Dr. Robin Coleman, PhD  
Development Director: Erika Diamond, MESC

### ***Programmatic Staff***

#### **Port Honduras Marine Reserve**

Manager: Dennis Garbutt  
Marine Biologist: Juan Chub, Bsc  
Head Ranger: Carlos Ramirez  
Ranger: George Sambula  
Ranger: Leroy Ramclam  
Ranger: Leonardo Castro  
Ranger: Marlon Williams

**Paynes Creek National Park**

Manager: Mr. Mario Muschamp

Ranger: Leonard Williams

Ranger: Susette Jacobs

Ranger: Darren Castellanos

**Private Lands Initiative**

Forest Management Specialist: Eugenio Ah

Ranger: Carlos Bardalez

Ranger: Joe Guy

Ranger: Anselmo Chavarria

**Freshwater Initiative**

Freshwater Coordinator: Joseph Villafranco, Bsc

**Environmental Education**

Environmental Education Coordinator: Danika Sierra

**Caribbean Regional Environmental Programme – Belize Project**

Demonstration Project Manager: Franklin Martinez, DVM

CPEP Office Assistant: Zarah Castillo

Community Liaison Officer: Phillip Gabriel

**Administrative Staff**

Office Manager: Stephanie Supaul

IT Officer: Serjio Briceno

Driver/Mechanic: Ernest Caliz

**Part Time Staff**

Scholarship Program Coordinator: Ronise Caliz

**TIDE Tours**

Ecotourism Coordinator: Erika Diamond, MESC

Ecotourism Assistant: Shiela Ramclam

Tour assistant: Martin Lino

## **PHMR Advisory Committee**

William Maheia, Chairperson, TIDE  
Rudy Arzu, Fisheries Department  
Ray Jacobs, Punta Negra Village  
Thomas Garbutt, Fisherman Association  
George Coleman, Tour Guide Association  
Phillip Gabriel, Rio Grande Fisherman Cooperative  
Leanora Requena, Belize Tourism Industry Association  
Imani Morrison, Coastal Zone Management Authority and Institute  
Ovel Leonardo Sr, Fisherman Cooperative  
Michael Espot, Toledo East Representative  
David Linarez, Monkey River Village  
Carlos Galvez, Punta Gorda Town  
Stanley Nicholas, Ministry of Education Representative  
Dennis Garbutt, PHMR Manager

## **Scholarship Students, Interns and Volunteers**

Lynette Middleton (Summer Camp Volunteer)  
Gillian Castro (Summer Camp Volunteer)  
Leonel Requena (Intern - University of Belize)  
Lincoln Pascasio (Intern – Sacred Heart Collage)  
Nevelle Smith – Volunteer research assistant  
Karl Castillo (MSc, Marine Sciences Programme, University of South Carolina)  
Nicole Cushion (MSc Candidate, Marine Biology, NOVA Southeastern University)  
Emily Collins

## **Tour Guides/Boats encountered in the PHMR for 2004**

### *Sport Fishing (Fly-fishing)*

Thomas Garbutt – Unity  
John Young – Permit  
Oliver Garbutt – Sea Life  
Alex Leonardo – C Dreamer  
Paul Jacobs – Mandingo  
Victor Jacobs  
Wilfred Requena – Renegade  
Eloy Cuevas  
Eworth Garbutt  
Ovel Leonardo  
Bruce Leslie  
Armando Ramirez  
Kevin Modera  
Wayne Castellanos

### *Snorkeling/Caye Tours*

Bobby Polonio - Princessa  
Roberto Echavaria – Mini Me and Wild  
Armando Ramirez  
Michael Cayetano – Josh  
Lionel Martin  
Bryan Garbutt  
Darrel Garbutt  
Paul Jacobs  
Victor Jacobs  
Oliver Garbutt  
Nevelle Smith  
George Alford  
George Coleman

Lionel Martin- B Dreamer  
George Leonardo- Bone eagle

*Commercial Fishing*

Alberto Posas  
Anna Ramirez  
Alex Mendusa  
Anna Ramirez - Lupita  
Antonio Pop  
Apolonio Westby  
Carlos Cofins  
Carlos Parham  
Conrado Parez  
Earl Lambey  
Edwardo Buchub  
Emerson Ramclam- Paula  
Eric Guterrez-Eunice  
Felize Guterrez  
Frank Kevins  
George Ramirez  
Glenford Sabal  
Henry Weatherbourne  
Hugo Hernens  
Jack Alford - Ocean Girl  
Jewel Casimiro  
Jorge Diaz-Rebecca  
Joseph Coleman

Jovanie Ramirez  
Jugo Delsid  
Jugo Hernandez  
Lealan Esperanza  
Leonel Delcid  
Lionel Martin  
Mario Guterrez –Kelly  
Nelson Coleman  
Paul Jacobs  
Phelipe Cal- Tishanne  
Ray Arzu- Iry  
Rene Avila  
Roberto Cabrera  
Roberto Cal-Natilly  
Roberto Canal  
Robun Robus -Diana  
Ronie Avila  
Roy Ramirez- Gilda  
Rudy Lambey  
Saul Martinez- Anderia  
Victor Jacobs  
Wilder Parham

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