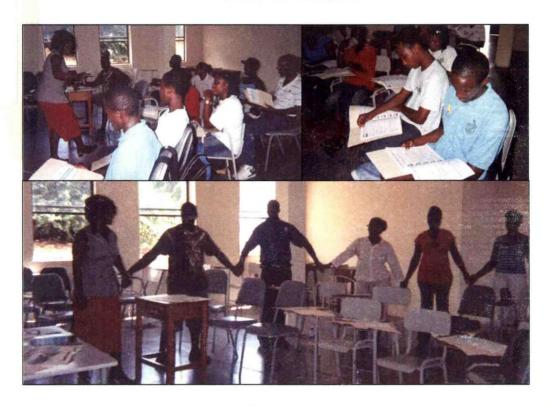
CERMES Regional Project on Enhancing Management Effectiveness at Three Marine Protected Areas in St. Vincent and the Grenadines, Jamaica & Belize

## Report of the TCMP Junior Ranger Workshop

QH 91.75 .S18 T36 2007

6 October 2007

**Union Island** 













Centre for Resource Management and Environmental Studies (CERMES)
University of the West Indies, Faculty of Pure and Applied Sciences
Cave Hill Campus, Barbados

**CERMES Regional Project on Enhancing Management Effectiveness at Three Marine Protected Areas in St. Vincent and the Grenadines, Jamaica & Belize** 

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#### Disclaimer

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#### Contact

Dr. Patrick McConney Senior Lecturer, CERMES UWI Cave Hill Campus St. Michael, Barbados Tel: 246-417-4725 Fax: 246-424-4204

Email: <a href="mailto:pmcconney@caribsurf.com">pmcconney@caribsurf.com</a> Web site: <a href="www.cavehill.uwi.edu/cermes">www.cavehill.uwi.edu/cermes</a>

#### 1 WELCOME AND INTRODUCTIONS

This workshop was held to introduce the Junior Ranger programme implemented in the Negril Environmental Protection Area (NEPA) comprising the Negril Marine Park (NMP), Jamaica, to the Tobago Cays Marine Park (TCMP) and Union Island. Maria Pena, CERMES project officer, welcomed the workshop participants and provided a brief background to the regional project on Enhancing Management Effectiveness at Three Marine Protected Areas in St. Vincent and the Grenadines, Jamaica and Belize. Participants were told that based on the evaluation of management effectiveness in the TCMP, one recommendation for adaptive management was to implement a Junior Ranger programme similar to the existing one in Jamaica on a scale to Union Island. The adaptation is aimed at encouraging upcoming and future generations of stakeholders to see themselves as stewards of the TCMP, and hence to be committed to improving management in several respects. Ms. Pena thanked Meritha Baptiste, TCMP, for a job well done in arranging and organising the workshop.

Workshop facilitator, Jean Brown (NMP Marine Board Chairman) was introduced to participants. Ms. Brown outlined the agenda (Appendix 1) which included a short overview session of the workshop objectives, a session defining sustainable development and sustainable environmental education, followed by an introduction to coral reefs and ways to turn trash into cash, examination of the Negril Junior Ranger programme, a discussion of environmental issues relevant to Union and a concluding session on drafting a Union Island Junior Ranger manual.

Participants were then asked to introduce themselves. Participation at the workshop was high, with 11 of 15 invitees attending. Participants included TCMP staff, teachers from primary and secondary schools and students (Appendix 2). Participants received a workshop file containing the agenda, a Negril Junior Ranger Manual and note paper.

#### 2 OVERVIEW OF WORKSHOP OBJECTIVES

Ms. Brown told participants that the main aim of the workshop was to complete a draft of a Junior Ranger programme that could be implemented in the schools in Union. The procedure would be for participants to look at activities in the Negril Junior Ranger programme that could be adapted or changed to suit the Union Island situation. She stated that she was happy to learn that two students were present at the workshop since their participation would be integral to the workshop and proposed programme. Other workshop objectives included:

- Defining sustainable environmental education
- Engaging teachers in creative activities that enhance their abilities to initiate an environmental programme in their schools
- Examination of the Negril Junior Ranger programme
- Exploring environmental issues relevant to a Junior Ranger programme

## 3 DEFINING SUSTAINABLE ENVIRONMENTAL EDUCATION AND SUSTAINABLE DEVELOPMENT

Ms. Brown asked participants to think about what sustainable development and sustainable environmental education meant to them. The aim of this session was to come up with a working definition for sustainable environmental education. The following words or phrases were volunteered by participants to be representative of sustainable environmental education and sustainable development:

#### Sustainable development

- Getting people involved in ways of keeping resources as long as possible. People must be involved to spread the information
- Process where surrounding natural resources are used to assist people. Not overusing it

#### Sustainable environmental education

- Ongoing environmental education involving people in the community
- Awareness
- Educating people about what is out there
- Educating communities about natural resources around us and how to maintain them for future generations

From the above phrases, the following working definitions were coined:

Sustainable development

Using or maintaining resources in a manner that they are not overused or depleted such that future generations can benefit.

Sustainable environmental education

Education geared towards making people aware of the natural resources around them and how to maintain them for the future.

## 4 CREATIVE ACTIVITIES TO INITIATE AN ENVIRONMENTAL PROGRAMME IN SCHOOLS IN UNION

Ms. Brown told participants that in Negril, environmental education has been infused across the curriculum. She used the biblical parable of the wise man building his house on the rock and the foolish man building his house on the sand to demonstrate the types of environmental impacts that may be encountered by constructing buildings too close to the shore in the coastal zone (i.e. removal of trees, erosion etc.). She then asked TCMP staff and teachers about the activities they would like to engage in to enhance their abilities to initiate environmental awareness in schools in Union. The following is a list of such activities proposed by the participants:

- Field trips (land and sea)
- Performing arts (plays, chanting, poetry etc.)
- Tree planting and caring
- Environmental competitions
- Clean-up campaigns
- Adopt-a-space
- Experiments/illustrations to prove bad practices harm the environment
- Garbage receptacles with environmental messages
- Educational videos

- Linkages with the TCMP
- Environmental clubs
- 'Green' open day
- Practicing the environmental 'Rs'
- Role play or special responsibilities (e.g. water monitors)
- Composting
- Environmental notice boards
- Letters to the editors of newspapers about environmental challenges
- Craft paper mache models of endangered species etc.

One participant noted that in order to implement them, the schools may have to introduce a special curriculum with government implementing the relevant legislation in support of certain activities such as tree planting. Since animals are not tethered but are allowed to roam free in Union, government support would be required for a tree planting and maintenance initiative in order to curtail damage to trees. Ms. Brown agreed that there had to be buy-in at higher levels for the programme to be successful, however she noted that people in Union needed to start somewhere before taking it to a higher level.

One participant asked Ms. Brown to recommend appropriate environmental activities that could be implemented in Union given its dry climate. Ms. Brown suggested that small trees could be planted in containers and schools could host inter- and intra-school environmental competitions (posters, essays, poetry and jingles).

Participants were told that in Negril, schools have sold compost to organic farmers with the two-fold result that the schools have been able to raise money and reduce garbage around their immediate surroundings. Other activities to raise awareness about the environment among school children have included national competitions sponsored by the National Environment Trust to encourage schools to set up environmental clubs, as well as the production by the Gleaner (a local newspaper), of a children's newspaper which is very widely read.

To demonstrate the range of creative activities available to persons to raise environmental awareness, Ms. Brown taught participants two environmentally conscious school songs popular in Jamaica (Box 1). Participants were invited to join in singing these songs.

#### Box 1: Popular Jamaican environmental school songs

Lots of garbage (Sung to the tune of Frère Jacques)

Lots of garbage
Lots of garbage
Lying on the ground
Makes the place untidy
Makes the place untidy
Pick it up
Pick it up

You're my brother, you're my sister

You're my brother, you're my sister
So take me by the hand
Together we will live and learn and lend a helping hand
There's no foe that can defeat us
When we're walking side by side
As long as there is love, we will stand

#### 5 NEGRIL JUNIOR RANGER PROGRAMME MANUAL

Participants were informed that the there is evidence that the Negril Junior Ranger Programme is working. Examples of such evidence included a fisherman confronting teachers about what they had been teaching his child at school since the latter had told him he should not catch baby fish; one student who was practicing what he had learned by making a compost pile in his backyard for his family to use; and a former Junior Ranger who is now a qualified Negril Marine Park (NMP) ranger.

Ms. Brown then briefed participants on the background of the Negril Junior Ranger Manual (Appendix 3). The first edition of the manual was produced in 1995, with the second edition following in 2000. A competition was held to choose a design for the manual's logo. Before implementing the Programme in schools in Negril, training sessions with teachers and selected students from a number of schools were held. Representatives from these schools then disseminated the information learnt at these training sessions to their colleagues and the Junior Ranger programme was then adopted in each of the schools. In order to become a Junior Ranger, students must complete all activities and specialty programmes in the manual in one year. On successful completion of specialty programmes, students are awarded badges. When the manual is completed and marked by teachers, a graduation ceremony for all students is held.

Ms. Brown then described the manual page by page, explaining the reason(s) for including the information and activities in order to introduce participants to the manual and to have them suggest which of the specific areas in the Negril manual could be adopted and or adapted to Union Island. Participants were impressed with the Negril Junior Ranger manual and were positive that a similar manual could be produced for Union. However, they insisted that there must be joint collaboration between the TCMP and schools for this to be successful. It was decided that the TCMP would take the lead on organising further activities and meetings to draft the manual with participation from all schools.

In this session, Ms. Brown used role play to determine if participants knew the importance of coral reefs. Wearing her sunglasses and using her spectacle case as a microphone, Ms. Brown played the role of a reporter interviewing participants about what they thought a coral reef was. In this very entertaining session participants said that they were aware coral reefs were breeding and nursery areas for fish, barriers for protection against waves and storms, and had slow growth rates. Participants were then divided into groups of two to briefly examine the information available on coral reefs in the Caribbean Conservation Association "People and Corals" workbook<sup>1</sup>. This exercise served to further enlighten most participants to the value of

The main concept of the *Coral Conservation Awareness in the Grenadines* project implemented by the Sustainable Grenadines (SusGren) project and the Centre for Resource Management and Environmental Studies (CERMES) was to establish a coral reef conservation education program in Grenadines primary schools by providing Caribbean Conservation Association "People and Corals" workbooks to schools and training teachers to use the workbook. Its use has substantially increased the students' awareness and knowledge of coral reefs across the Grenadine islands. Recommendations have been made to implement the use of the book in the schools and to integrate it into the current curriculum. For more information on this project, please visit http://www.cavehill.uwi.edu/cermes/SusgrenPublications.

these natural resources. At the end of this activity, Ms. Brown presented Lesroy Noel, TCMP Education Officer, with a copy of the "People and Corals" workbook.

Also in this session, participants were informed about innovative ways of 'turning trash to cash'. These include composting and sale of the compost to farmers; recycling and reuse of materials (using cartons to make canister sets for salt, sugar, flour and rice); making souvenirs; spray painting egg shells for craft; making lamp shades from old telephone directories; making vases from bottles; making tyre gardens; using oil drums as garbage bins (these can be painted with environmental messages and sold to businesses); using broken glass to make mosaics; and using coconut shells to make jewellery boxes, jewellery and hair clips.

#### 6 DRAFT UNION ISLAND JUNIOR RANGER MANUAL

Before attempting to draft a Junior Ranger manual for Union Island, participants were asked to list activities and issues (environmental and other) for inclusion and highlighting in the draft manual for Union. The following activities and issues were thought to be the most relevant:

- Government support
- Providing junior rangers with access to the TCMP
- Junior ranger ride-along with TCMP rangers when the latter are explaining the do's and don'ts within the TCMP to tourists
- Field trip to the salt pond
- Waste management activity: perhaps a field trip to the dump
- Water management and public health information specifically targeting the mosquito problem on the island
- Address issue of people damaging coral reefs
- Address marine debris problem caused by yachts
- Information of harm posed to the environment by "let-go" animals (untethered animals, mainly goats and sheep)
- Activity/activities for the children of tourists to participate in

Ms. Brown then took participants through the Negril Junior Ranger manual, this time with the aim of adapting it to Union Island. Relevant information, such as legislation pertaining to the TCMP was noted for inclusion, irrelevant sections were removed and activities were changed to suit the situation in Union. The following provides a table of contents for the draft manual:

Table 1 Table of contents for draft TCMP Junior Ranger manual. Page numbers in brackets indicate corresponding pages in the Negril manual

Heading Junior ranger corps: Training manual Tobago cays Marine Park (TCMP), Union Island	Notes Logo to be replaced with Union Island logo	PAGE Cover page
TCMP overview with accompanying map	Map of Tobago Cays	1 (1)
Union Island contributors	Acknowledgement of all those involved in producing the manual	1 (1)
Who is a ranger?	Same definition as in Negril	2 (2)

Heading	Notes manual	PAGE
Who is a junior ranger?	Same definition as in Negril manual	2 (2)
Basic junior ranger programme Overview of Union Island; Field trip to the salt pond, mangrove and TCMP; Island tour; Waste management and public health workshop – field trip to dump; Animal control workshop; Overview of environmental laws; and First aid workshop	Forestry Department to provide overview of environmental laws Basic life saving techniques to be taught in first aid workshop	3 (3)
Rangers need to know	Same as for Negril manual	
Junior ranger requirement	Adapt for TCMP/Union Junior Rangers should be able to	4 (5)
	identify on the TCMP map (page 5): Individual Cays and reefs; Special features of the Cays; No fishing areas	4 (5)
Rangers need to know about Laws, such as: Tobago Cays Marine Park Act	Written in child-friendly language	
Map of the Tobago Cays Marine Park	Map showing the Cays, possibly with reefs included	4 (5)
		5 (6)
Rangers need to know	Same as for Negril manual	6 (7)
Junior ranger requirement	Same as for Negril manual but with the endangered plant and animal species of Union	6 (7)
Rangers need to know about laws, such as: The Fisheries Act	Fisheries Act for St. Vincent and the Grenadines written in child- friendly language	6 (7)
Some of protected, rare and endangered plants and animals found in Union Island and the TCMP	Graphics of mangroves, the black snake, bird (to be named), an iguana and manicou. Perhaps Mark DaSilva could assist in helping Junior Rangers identify these flora and fauna	7 (8)
Rangers need to know	Same as for the Negril manual but remove the third sentence (about how big fish need to be before they can be caught)  Same as for the Negril manual	8 (9)
	but with endangered sea plants and animals of the TCMP	

Heading Junior ranger requirement	<b>Notes</b> Graphics of parrotfish, turtles,	PAGE
Junior ranger requirement	lobster, conch, seagrass, sea egg, corals, and crabs	8 (9)
Company to start and are supplemental and allowers and	Same as for the Negril manual	
Some protected, rare or endangered sea plants and animals of the TCMP	Map of Union Island and Tobago Cays. Junior rangers will have to identify, the individual	9 (10)
Rangers need to know	Cays by name, perhaps prominent reefs, and locations of where they live, their school and towns in Union. Field trip sites	10, 11 (11, 12)
Junior ranger requirement	may also be included, i.e. mangrove in Ashton, salt pond and dump in Clifton	10, 11 (11, 12)
Rangers need to know	Same as for the Negril manual	12 (15)
Junior rangar raquirament #1	Same as for the Negril manual	12 (15)
Junior ranger requirement #1	Same as for the Negril manual	12 (13)
Junior ranger requirement #2	Seek-a-word with words relevant to the TCMP and Union Island	12 (15)
Junior ranger seek-a-word	Same as for the Negril manual	13 (16)
Junior rangers need to know	Members should be changed to: TCMP rangers, Public health officers, Coast Guard, Police, Fisheries officers, Customs	14 (17)
Junior rangers are part of this team. Other members are:	officers, Water taxi operators, Tour operators	14 (17)
If you found someone doing the following	Illegal or harmful activities need to be changed to reflect the situation in Union and the TCMP. Sentences should include: Yachts in the Tobago cays without permission; A boat in distress; Who would you call if a yacht wants to dispose of garbage or wants special services?	15 (18)
	Same as for the Negril manual	
	Same as for the Negril manual	
	Same as for the Negril manual	
Rangers need to know	Same as for the Negril manual with changes to no. 5. Special places to visit in Union and the	16 (19)
Junior ranger requirement	TCMP include the salt pond, the	

Heading	<b>Notes</b> TCMP, the mangrove, the forest	<b>PAGE</b> 16 (19)
Plant report	reserve, a reef (s), the lighthouse, the dump and frigate island.	17 (20)
10 tasks you need to complete	Pledge competition to be launched	18,19 (21, 22)
TCMP pledge		Back page

#### 7 FOLLOW-UP

Ms. Brown will provide participants with a mock-up draft TCMP Junior Ranger manual by the third week in November 2007. This will then be revised by the TCMP and relevant teachers to produce a second draft which should be close to, if not, ready for printing.

The TCMP, in association with the invited schools, will host a logo and pledge competition with planned deadline for submission of entries scheduled for 1 December 2007. The TCMP has agreed to provide prizes to the winners of these competitions.

It is important that the TCMP is proactive and takes the lead on the above activities in an attempt to increase awareness about the natural resources of the marine park (and Union Island) and to improve stakeholder participation in management. Due to the uniqueness and fragility of the Tobago Cays it is hoped that the implementation of a Junior Ranger programme in Union Island will achieve the above by fostering environmental awareness in its future stakeholders.

#### 8 APPENDICES

#### Appendix 1: TCMP Junior Ranger Workshop Agenda

The Tobago Cays Marine Park is not-for-profit government organization, which depends heavily on community support to operate efficiently. Our goals and commitments are expressed through our mission statement.

MISSION STATEMENT of Tobago Cays Marine Park is to protect, conserve and improve the natural resources of the Tobago Cays.



Tobago Cays Marine Park Clifton, Union Island St. Vincent & the Grenadines Tel: 784-485-8191

Fax: 784-485-8192
Email: tcmp191@hotmail.com
Email: tcmp191@yahoo.com



Presents an

ENVIRONMENTAL EDUCATION WORKSHOP
For Teachers



Venue: Learning Resource Centre, Ashton, Union Island

Saturday October 6, 2007

9:00a.m. to 5:00 p.m.

#### WORKSHOP OBJECTIVES

- 1. To define sustainable Environmental Education.
- 2. To engage teachers in creative activities that enhance their abilities to initiate an Environmental Programme in their schools
- 3. To examine the Negril Junior Ranger Programme
- 4 To explore environmental issues relevant to a Junior Ranger Programme
- 5. To complete a draft of a Junior Ranger Manual for school in St. Vincent

\*\*\*\*\*\*\*\*\*\*\*\*\* Meritha Small Baptiste

Coordinator

Jean P. Brown Facilitator AGENDA

9:00a.m.- 9:15 a.m. Registration

9:15a m. - 9:25a m. Welcome and Introduction

9.25a.m.-9:35a.m. Overview of Workshop /

Objectives

9:35a.m.-9:50 a.m. What is Sustainable

Environmental Education?

9:50a.m. - 10:50 a.m. I am a Coral reef, Turning Trash to Cash

10:50a.m.-11:05a.m. BREAK

11:05a.m.- 12:00 noon A Look at Negril Junior

Ranger Programme

12:00noon -1:00p.m. LUNCH

Relevant Local 1:00p.m. -2:p.m.

Environmental Issues

2:00p.m. - 4:30p.m.

Drafting a St Vincent Manual

4:30p.m.-5:00p.m.

Wrap-up / Evaluation

Appendix 2: Workshop participants

Name	Organisation
Elton Joseph (student)	Union Island Secondary School
Fabio Roberts	Union Island Secondary School
Kisha Bowen	Cinder's Creative Nest Pre-school
Kevin John	Mary Hutchinson Primary School
Jose-Ann Wilson	Mary Hutchinson Primary School
Lesroy Noel	TCMP
Hyron Joseph	TCMP
Lorette Coy-James	Clifton Primary School/Union Island Museum Society
Meritha Small- Baptiste	TCMP
Shurlan Joshua	Stephanie Brown Primary School
Vibert Dublin	TCMP
Gracita Wilson	Social worker

Appendix 3: Negril Junior Ranger Manual



## Training Manual



NEGRIL ENVIRONMENTAL PROTECTION AREA

## The Negril Environmental Protection Area

The Negril Environmental Protection Area was declared November 28, 1997 by Government. It is called NEPA for short, and the people who live there care very much about their environment. They know that we depend on the environment to make a living and feed our families. For example, we have been blessed with coral reefs that provide homes for fishes and other marine life that we can use for food. We have thick, lush forests and hills that catch the rain water and store it in underground springs. Mango, ackee, papaya, and banana are only a few of the many trees that supply us with fresh nutritious fruits. The white sandy beaches give us a place to swim, and many tourists visit us every year to bathe in our crystal clear waters and enjoy our bright sunshine.

The Negril Environmental Protection Trust (NEPT) is the umbrella organization for the EPA and is responsible for its management. Within the protected area many more protected areas can and will be developed. One such area is the....

## **Negril Marine Park**

The Negril Marine Park was offically declared on March 4, 1998, after a seven year lobby by the Negril Coral Reef Preservation Society (NCRPS). The boundaries of the Marine Park start at the high watermark, (which is where the waves come up on shore), and goes out to the deep water drop off, which in some cases is as far as three miles out to sea. The Marine Park is currently being managed by NCRPS.

Teachers and community leaders from all around NEPA have worked very hard with the Negril Coral Reef Preservation Society to put together this training manual. We would like to recognize the following people for their writing, drawing, and organizational skills that have made this handbook a reality, and a welcome training tool for our future Junior Rangers.

Katy Thacker, Executive Director Negril Coral Reef Preservation Society

Jean P. Brown, President Negril Coral Reef Preservation Society

Roberta Raigh Pryor, Reef Rap Editor Negril Coral Reef Preservation Society

Chantelle Carvalho Black, Coordinator, NCRPS Junior Ranger Programme

Diane Johnson, Teacher Negril All Age School

Ray Jackson, Teacher Green Island Comprehensive School

Oscar Reckord, Community leader Orange Bay

Valerie Fraser, Teacher Sheffield All Age School

1

Aldith Walker, Teacher Saint Paul Primary School Heila Clayton, Teacher Mount Airy All Age School

Andrea Campbell, Teacher Mount Airy All Age School

Stella Lindsay, Teucher Mount Airy All Age School

Louise Pringle-Simms, Teacher Mount Airy All Age School

Everald Spense, Student Negril All Age School

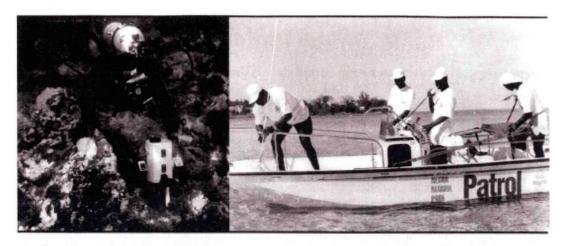
Karen King, Student Negril All Age School

Leasho Johnson, Student Negril All Age School

Phelecia McKenley, Student Green Island Comprehensive High School

Gary Caruthers, Student Green Island Comprehensive High School

2000 printing made possible, in part, through funding from Environmental Foundation of Jamaica.
© Negril Coral Reef Preservation Society, 1995, 2000



## Who is a Ranger?

A Ranger is someone who takes care of special parks and protected areas like the Negril Marine Park within the Environmental Protection Area. Rangers teach people about the environment and the laws that are designed to protect our natural resources. Rangers have the power to enforce those laws, so that if they see someone doing wrong, they can arrest them. A ranger teaches children and adults about the special plants and animals in our protected area and what we can do to take care of them.

## Who is a Junior Ranger?

A Junior Ranger is a caretaker for the environment. The Junior Ranger learns as much as he/she can about our natural resources so that he/she can teach others. Junior Rangers look after their schools and communities to make sure that

they are kept clean. Junior Rangers learn about environmental laws so that they can help Rangers enforce them. Junior Rangers are always trying to learn more about their natural resources so that they can teach others and learn to be Rangers one day.

One thing Junior Rangers need to do is complete all of the activities in this manual. That is the first step towards becoming a Negril Environmental Protection Area Junior Ranger.

This manual is about what Rangers need to know, and about what Rangers need to do.



## **Basic Junior Ranger Programme**

Students must complete *all* the activities in the Junior Ranger Manual. The manual must be monitored, approved and signed by a certified Junior Ranger Trainer to be accepted as a completed manual.

Students must take part in International Earth Day activities, and are encouraged to participate in International Coastal Cleanup.

Students must attend the training workshops during the course of the year and write a report on one of the following field trip experiences:

#### **History of Negril Watershed**

Forestry Workshop: Field trip to limestone forest and aquifer recharge area.

#### **Wetlands Workshop**

Field trip to Royal Palm Reserve.

#### Coral Reef, Seagrass & Mangroves Workshop

Field trip optional.

#### **Waste Management Workshop**

Optional field trip to sewage and water treatment plant.

Students will receive a NEPA Junior Ranger button to wear during training and a badge upon completion of programme, along with the Basic Junior Ranger Programme Certificate.

Students shall carry an attendance card that must be signed by the Trainer as proof of attendance at workshops in every phase of the Junior Ranger Programme.

## Advanced Junior Ranger Programme Prerequisite: Basic Level Certification

Students must complete all optional field trips not completed under the Basic Programme. Students must participate in International Earth Day and International Coastal Cleanup Activities. Students must assist a Trainer with at least one of the workshops or field trips. Students must complete summer swimming and snorkeling class. Students must pass a test to qualify for graduation.

Students wear Basic programme buttons and badges at all workshops and field trips and receive an Advanced Badge and Certificate upon successful completion of Programme.

## Junior Ranger Specialty Programmes

Students will receive Specialty Badges and Certificates upon completion of each Programme.



## Administrative Management

Prerequisite: Basic Level Certification

Course includes minimum five days office experience at NCRPS and/or NEPT learning filing, faxing, photocopying, and phone answering skills. Students will have at least one lesson in computer skills. Students will spend three days visiting schools, with a minimum of one day distributing educational materials.



## **Environmental Monitoring**

Prerequisite: Advanced Level Certification

Course includes two days NCRPS lab experience including: assisting in lab with preparation of samples and recording data; two days water sampling field experience, two days transect experience (snorkeling required) with NCRPS Rangers. Student must write report on experience.



## **Junior Ranger Lifesaving (RLSS)**

Prerequisite: Advance Level Certification

Students must be avid swimmers and undergo strict training for a minimum of five days. Upon completion of course students must demonstrate practical and theoretical first aid and CPR skills, and be well versed in lifesaving procedures.



## **Marine Park Management**

Prerequisite: Advanced Level and Junior Lifesaving Certification

Course includes a minimum of five days patrol with Marine Park Rangers, review of Marine Park regulations and relevant Environmental Laws. Students will interview fishermen, take a one day tour of the EPA, spend two days working on mooring maintenance, and write a Ranger Report.



#### **Eco-Tour Guide**

Prerequisite: Advanced Level and Junior Lifesaving Certification

Course includes tourism training by TPDCo, followed by NCRPS Eco-Tour training. Upon completion, students must be capable of knowledgeably guiding a tour to Ireland Pen, West End Cliffs, South Negril River/Royal Palm Preserve and the Coral Reefs.

# RANGERS Need to Know...

... about their environment, how it works, and what parts of it are especially important. NEPA Rangers need to know about their environmental protection area and all of the very special places within it. Some of these will become national parks, marine parks, and other kinds of protected areas.



## Junior Ranger Requirement:

Write the names or numbers of these special areas in the boxes on the map.

- 1. Long Bay
- 2. Fossil Reef & Caves
- 3. Booby Cay
- 4. North Negril River
- 5. Bloody Bay
- 6. South Negril River
- 7. The Great Morass
- 8. Negril Lighthouse
- 9. Royal Palm Reserve

- 10. Negril Water Supply
- 11. Orange Bay
- 12. Dry Limestone Forest
- 13. Coral Reefs
- 14. Salmon Point
- 15. Little Bay
- 16. Homer's Cove
- 17. Green Island Harbour
- 18. Little Bloody Bay

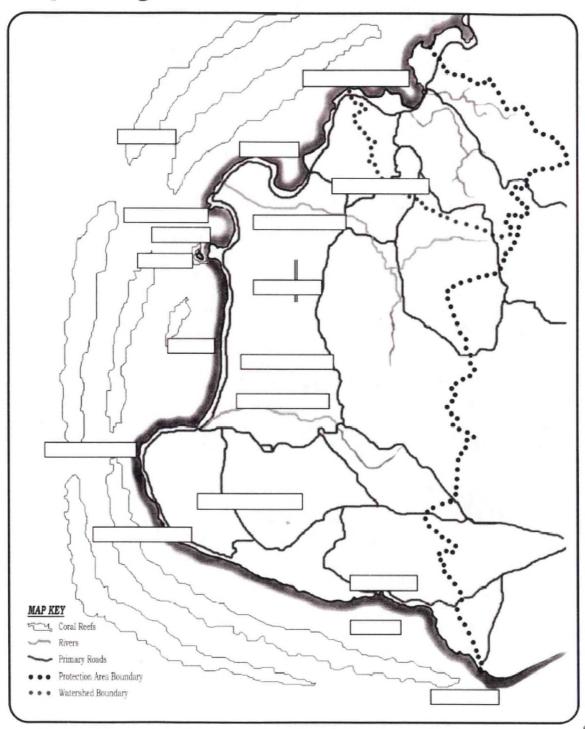
## Rangers Need to Know about Laws, such as:

## The Natural Resource Conservation Authority Act



Natural Resources Conservation Authority This law is used to protect natural and marine parks. The Act points out that the Minister may, by order, make known publicly, any area of land as a National Park. Land near rising water, or any area of water, can be used as a Marine Park. These parks will be kept in good condition for the benefit of the public. Both national and marine parks will keep safe, living and nonliving objects in the natural environment that are of beauty, educational, historical, or scientific interest.

# Map of Negril Environmental Protection Area



# RANGERS Need to Know...

... about the land, the different kinds of habitats (plant and amimal communities). They need to know about specially protected plants and animals which might be found there. Rangers also need to know about hunting laws and seasons.





## **Junior Ranger Requirement:**

Find out a FUN FACT about each of the plants or animals on the facing page. Colour the drawings.

## Rangers Need to Know about Laws, such as:

## The Wildlife Protection Act

The Wildlife Protection Act (WPA) became law in 1945. The purpose of this act is the protection of certain wildlife such as animals, birds, and fishes. To achieve this purpose, special areas were established where hunting and fishing are allowed. There are places known as Game Sanctuaries where you are not allowed to hunt any animal or bird or take their nest or egg. If you are found in the Game Sanctuary with a catapult or other equipment that may be harmful to animals, you can be arrested. It is against the law to capture these birds or animals for sale or keep them as pets. The WPA protects any creature that lives mainly in water and the water that they live in. It is an offense for any person to kill or take immature fishes. Dynamiting of fishes and use of any other chemical, poisons fish and destroys their breeding ground. A provision of the act protects the rivers, sea, streams, canal, and lagoons, and makes it an offense for us to dispose of dangerous material such as chemicals and sewage in them.

The NRCA is responsible for the administration of the WPA, but as citizens of this country, we will have to do our part to make it work.

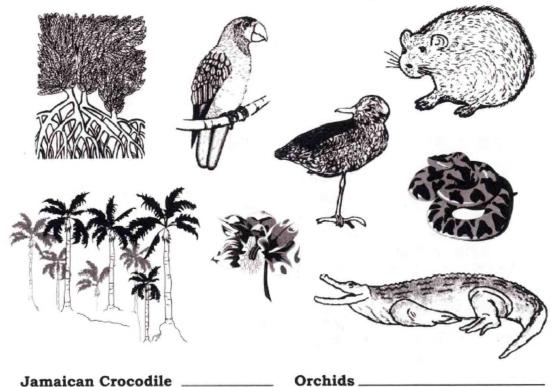


Under this act, the NRCA has the power to appoint Game Wardens and Fishery Inspectors, who along with constables, will help to keep the law. They are given powers to search and detain anyone that they see who has in their possession: birds, eggs, nest, fishes, or animals that are protected under the act.

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# Some of Jamaica's protected, rare, and Endangered plants and animals.

How many have you seen? Write a statement about each picture.



All Snakes	Jamaican Coney
Mangrove Trees	Royal Swamp Palm
West Indian Whistling Tree Duck	Jamaican Parrot

# RANGERS Need to Know...

... about the sea and the different kinds of habitats ( plant and animal communities) found there. They need to know about specially protected sea plants and animals. They need to know about those which we harvest for food and other purposes.



... about fishing laws and regulations, about when lobster cannot be harvested because they are breeding.

... about how big fish need to be before they can be caught.



## Junior Ranger Requirement:

Find out a FUN FACT about each of the plants or animals on the facing page and write it on the space provided. Colour the drawings.

## The Fishing Industry Act

The Minister of Agriculture has the right to prohibit fishing in a particular area. Any person caught fishing, or attempting to fish in any area declared as a fish sanctuary shall be taken before court and shall be charged \$500 or given a sentence of up to six months imprisonment. The Minister can declare any period to be a closed season for any specified species. Closed Season for lobster is April 1 through June 30.

The fishery inspector may enter boats and examine licenses, identification cards, fishing nets, lines, or other equipment. Anyone who refuses to cooperate with the inspector and should assault or obstruct the inspector who is carrying out his duty shall be guilty of an offense. If you are found committing an offense, the inspector may seize all fishing equipment with or without a warrant.

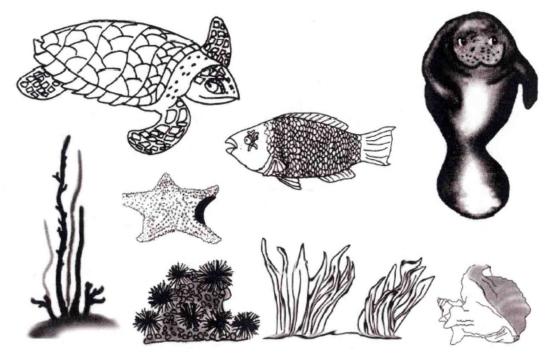
Anyone who is caught stealing another fisherman's property can be charged



\$1,000 or 12 months in prison. The owner of every carrier vessel (any boat used to transport fishermen to any Cay to fish) should keep a register of all fishermen employed by him and he is responsible for their welfare during a fishing expedition. He must supply them with drinking water and food, and keep them safe.

# Some of Jamaica's protected, rare, and Endangered sea plants and animals.

How many have you seen? Where did you see them?



	Sea Urchins
Sea Turtles	Parrot Fish
Conch	Irish Moss
	Starfish



... about maps. Maps show the land and water areas. They show roads, rivers and points of interest. Maps hel us to find places we want to go. This is a Map of the Negril Environmental Protection Area.



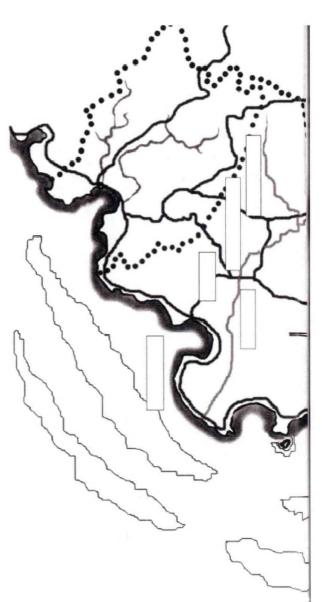
# **Junior Ranger Requirement:**

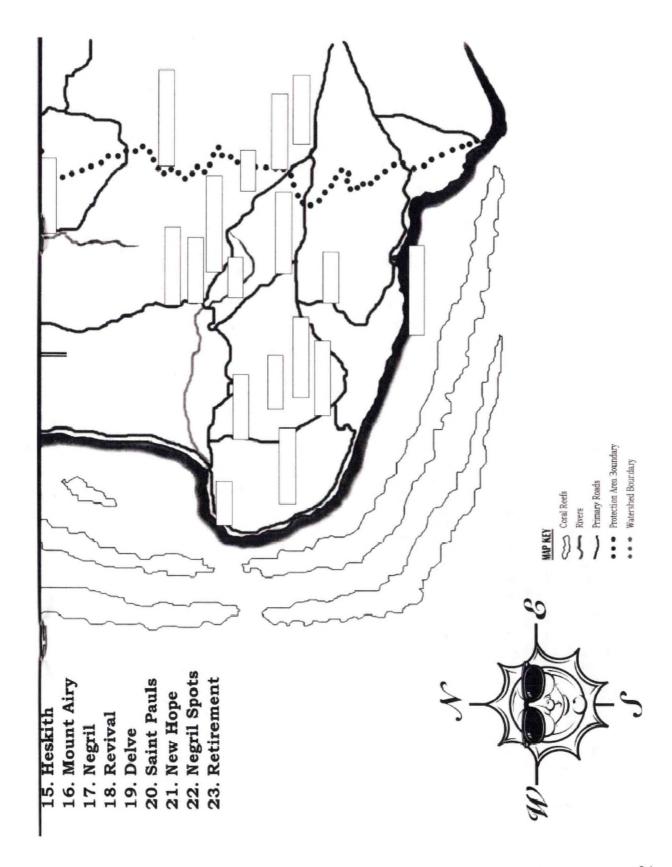
Make an X where you live, and a(X) where your school is located. Colour the various areas within the EPA when you study them with your Teacher Trainer. Make the sea and rivers blue, and the coral reefs gold. Write the names of all the towns, listed below, in the boxes to show their locations.

- Orange Bay
  - 3. Phoenix Town 2. Santoy
- March Town 4. Logwood i,
  - Cave Valley 6
- 7. Spring Garden Moreland Hill
- Spring Field

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- 10. Sheffield
- 12. Homer's Cove Whitehall
  - Orange Hill Ketto 14.





# RANGERS Need to Know...

... about Jamaica's Watershed Management Units. They need to know about the status of each and how many there are in Jamaica. They need to know the boundaries of the units in Hanover and Westmoreland, and they need to know about the relationship between Watershed Management Units and coral reefs.





## **Junior Ranger Requirement:**

Using the Watershed Management Units Map on opposite page:

- 1. Name the Watershed Management Units in Hanover.
- 2. Name the Watershed Management Units in Westmoreland.
- 3. Find a Fun Fact about one Unit in Hanover.
- 4. Find a Fun Fact about one Unit in Westmoreland.
- 5. Colour Hanover's Watershed Management Units Blue.
- 6. Colour Westmoreland's Watershed Management Units green.

## Rangers Need to Know about Laws, such as:

## The Watershed Protection Act

This Act became law in 1963 and governs watersheds in Jamaica. The Natural Resources Conservation Authority is responsible for administering the Watershed Protection Act.



Natural Resources Conservation Authority

The main purpose of the Act is to conserve water resources by protecting land in or beside watershed areas. The Act aims to ensure proper uses of land in vital watershed areas, to reduce soil erosion, to maintain high levels of groundwater and to encourage regular flows in our rivers and streams.



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5	IO. NAME	AREA (Km)	(Km)	No.	No. NAME	AREA	AREA (Km)	
-:	1. South Negril-Orange River 46.6	River	46.6	10.	10. Pencar-Buff Bay River	iver	201.9	
.:	Lucea River		267.4	11.	11. Spanish River		127.4	
~	3. Great River		327.7	12	12. Swift River		94.2	
-2	4. Montego River		289.2	13.	13. Rio Grande		309.7	
	Martha Brae		615.8	14.	14. Drivers River		216.6	
	6. Rio Bueno-White River		1.570.7	15.	15. Plantain Garden River	iver	192.6	
	Rio Nuevo		107.7	16.	16. Morant River		307.8	
-	. Oracabessa-Pagee River	ver	173.4	17.	17. Yallahs River		214.5	
-	. Wagwater River		309.4	18.	18. Hope River		225.8	

865.7 464.4 561.4 1638.8 89.1 273.2

No. NAME 19. Rio Cobre Rio Minho 21. Milk River

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New Savannah River

22. Gut-Alligator Hole23. Black River24. Deans Valley River25. Cabarita River26. New Savannah Rive

# RANGERS Need to Know...

... how to help people, and how to find help quickly. Rangers need to know about: First Aid; Lifesaving; CPR (Cardio-Pulmonary Resuscitation); Search & Rescue; and Disaster Preparedness.



# Junior Ranger Requirement:

Junior Ranger Requirement:  the definition of First Aid. List the equipment and supplies needed good first aid kit.			
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## Junior Ranger Seek-A-Word

#### **Word List:**

JUNIOR ENVIRONMENTAL LOBSTER CARETAKER RESOURCES TURTLE MARINE PARK MANATEE FOSSIL CORALS RANGER WILD LIFE LAWS
PARROT
FISHERMEN
LAND
SNAKE
WATERSHED

AIR COMPOST CROCODILE NEGRIL SEAMOSS

# RANGERS Need to Know...

...about who to enforce environmental laws. They are part of a team. They work with many other people to see that all of the environmental laws are obeyed. An important part of enforcement is teaching people about laws and why it is important to obey them.



## Junior Rangers are part of this team. Other members are:

- Public Health Officers: Public Health officers are responsible for inspecting toilets and sewage treatment for homes and businesses to make sure that they are safe. They can also make people pick up their garbage and keep their area clean. Public health officers test our drinking water, the water in our rivers, and the sea water, to make sure that is clean and safe.
- NRCA Conservation Officers: NRCA Conservation officers teach people about the various environmental laws of Jamaica. They also enforce those laws like the Wildlife Protection Act, Fishing Industry Act, and more.
- NGIALPA Building Inspectors: These inspectors check to see that people are following the rules for development, and to see if they have the proper permits for building. They also inspect toilets and sewage systems.
- Fisheries Officer: The Fisheries officer checks to see that fishermen have licenses. They also enforce the Fishing Industry Act. This means that they can arrest someone for catching fish and other marine life out of season, or catching fish that are too small.
- ★ Game Wardens: A game warden can search any person who is suspected of breaking the rules of the Wildlife Protection Act. A game warden can also search any vehicle or boat for any animal, bird, fish, and bird's nest or egg. He/she can search for any weapon used to trap or kill these animals.
- National Park Rangers: National Park Rangers enforce the laws for the Park. They also teach people all about the environmental laws and how important they are. They stop people from cutting down trees and using dangerous chemicals when they are farming or planting.
- Marine Park Rangers: Marine Park Rangers enforce Marine Park Regulations. This means that they stop people from dropping anchors on the reef, and dumping garbage into the sea. They teach people about the environmental laws and how to take care of the coral reefs and sea.
- **Police and Marine Police:** The police have the power to arrest any person who is disobeying the law, so they work with all the other members of the team.

Somebody collecting turtle eggs from the beach.
Somebody dumping garbage in the river.
Somebody building a house without permission.
Somebody cutting a tree in a national park.
Somebody collecting corals in a marine park.
Somebody using dynamite to catch fish.
Somebody catching lobster in April.
Somebody Hunting birds out of season.
Somebody putting a pit toilet right next to the river.
Somebody dropping an anchor on the coral reef.



... how to do research. They need to collect data, compare findings and compile results for analysis.





## **Junior Ranger Requirement:**

Research Jamaica's unique Mangroves.

#### **Visit a Mangrove Forest**

Remember to wear appropriate shoes and clothing, and observe safety rules.



- 1. Observe mangroves that grow in the water.
  - What is unique about these trees? Observe their leaves. Use a magnifying glass to see more details.
- 2. Observe mangroves that grow behind the waterline.

What is unique about these trees? Use a magnifying glass to observe their leaves.

3. Observe mangroves that grow further inland.

What is unique about these trees? Observe their leaves.

- 4. Within your group, or with a partner, discuss the similarities / differences you observed about the mangroves.
- Go to the library or visit the NCRPS office and find out more about the different types of mangroves. You may ask a Marine Park Ranger or the Environmental Education Officer for help.
- Document your observations on the Plant Report sheet on the following page.

## **Plant Report**

## Date of Entry/Observation

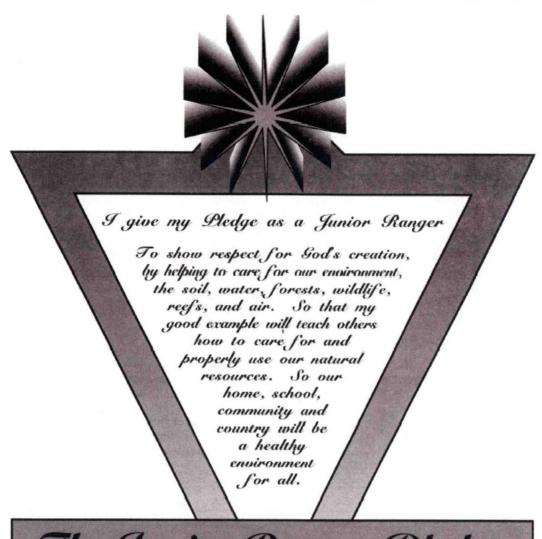
Family Genus S	pecies	
Common Name		
Evidence used to support identification:		
Description of roots:		
Description of leaf:  Leaf arrangement, (opposite, alternate, whorled)	Drawing of leaf or root system	
Type of tree: (woody tree, woody shrub, herbaceous tree)		
Where does it grow?	_	
Reproductive status		
Family Genus Sp	pecies	
Common Name Nickname		
Evidence used to support identification:		
Description of roots:		
Description of leaf: Leaf arrangement, (opposite, alternate, whorled)	Drawing of leaf or root system	
Type of tree: (woody tree, woody shrub, herbaceous tree)		
Where does it grow?	_	
Reproductive status		
Family Genus S	pecies	
Common Name Nickname		
Evidence used to support identification:		
Description of roots:		
Description of leaf: Leaf arrangement, (opposite, alternate, whorled)	Drawing of leaf or root system	
Type of tree: (woody tree, woody shrub, herbaceous tree)		
Where does it grow?		
Reproductive status		



# 10 tasks you need to complete to become a member of the NCRPS Junior Ranger Corps

Place Cleaned	Witness Signature	Date
elp somebody in need. De	escribe what you did below.	
Person Helped	Witness Signature	Date
e able to identify 5 differe	nt kinds of trees or flowers.	
1.	4	
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e able to identify 5 differe	ent kinds of birds. (No chickens)	
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2	Witness Signature  special places in the NEPA  Date Visited  Fish River Hills	Date
2	Witness Signature  Special places in the NEPA  Date Visited  Fish River Hills  Orange Bay  Ireland Pen	Date
2. 2. 3. Visit at least four of these serve  Royal Palm Reserve  NCRPS/NEPT Office  Mangrove Forest  Bloody Bay	Witness Signature  Special places in the NEPA  Date Visited  Fish River Hills  Orange Bay  Ireland Pen  Booby Cay	Date
2	Witness Signature  Special places in the NEPA  Date Visited  Fish River Hills  Orange Bay  Ireland Pen  Booby Cay  Little Bloody Bay	Date
7 isit at least four of these s  Royal Palm Reserve NCRPS/NEPT Office Mangrove Forest Bloody Bay Ncgril Lighthouse Fossil Coral Reef	Witness Signature  Special places in the NEPA  Date Visited  Fish River Hills  Orange Bay  Ireland Pen  Booby Cay  Little Bloody Bay  Sewerage Plant	Date
2	Witness Signature  Special places in the NEPA  Date Visited  Fish River Hills  Orange Bay  Ireland Pen  Booby Cay  Little Bloody Bay	Date

Protection Area. Write wh	or class, something about the Negril Enviro at you taught and when.	nmental
Person Taught	Witness Signature	Date
7. Meet one of the Negril Env Enforcement Officers and	rironmental Protection Area's Environmental have them sign here. (See page 17.)	l
Signature of Person	Title or Position	Date
. Complete at least three of		
Build a compost pile Plant a tree	Meep a nature journal or sketchbook.	Date Complete
<ul><li>Save Water</li><li>Separate Trash</li><li>Other (Describe)</li></ul>	Read a book about the environment and make a book report.	
	Witness Signature	Date
D. Learn, and be able to recit this Manual	e the Junior Ranger Pledge written on the ba	ack page of
	Witness Signature	Date
). Complete all of the Junior	Ranger Requirements in this manual.	
	Junior Ranger Teacher Trainer Signature	Date



## The Junior Ranger Pledge

