

OCEAN LIFE SYMPOSIUM II : OCEAN LIFE ON THE BRINK

**The Eastern Caribbean Coalition for
Environmental Awareness**

The Pew Environment Group

The Kido Foundation

The Grenada Fund for Conservation

Grenada Grand Beach Resort

GRAND ANSE, GRENADA

19th – 21st MAY 2010

***Threats to Ocean Life and
Marine Mammals and
innovative Conservation
& Community projects and a
fisher's whale watch
cooperative***

- Dr. Fitzroy Armour,
Green Ventures Ltd

Threats to ocean life and marine mammals



Sharon Jones & Dr Fitzroy Armour
Green Ventures Ltd
Photo by Dr Fitzroy Armour

We all Agree

Oceans are at risk

IMPENDING CRISIS @ IWC

*“We’re in this thing TOGETHER
Extinction is FOREVER...”*

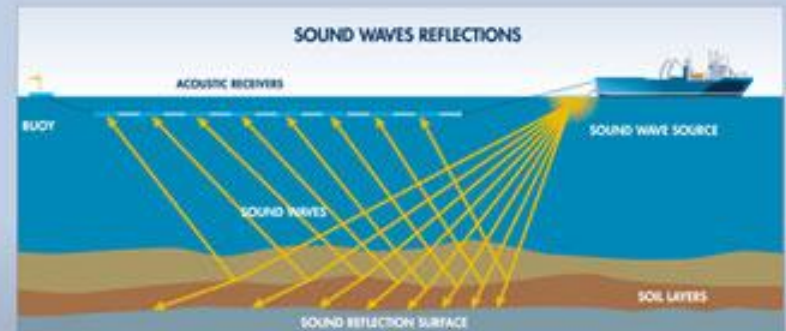
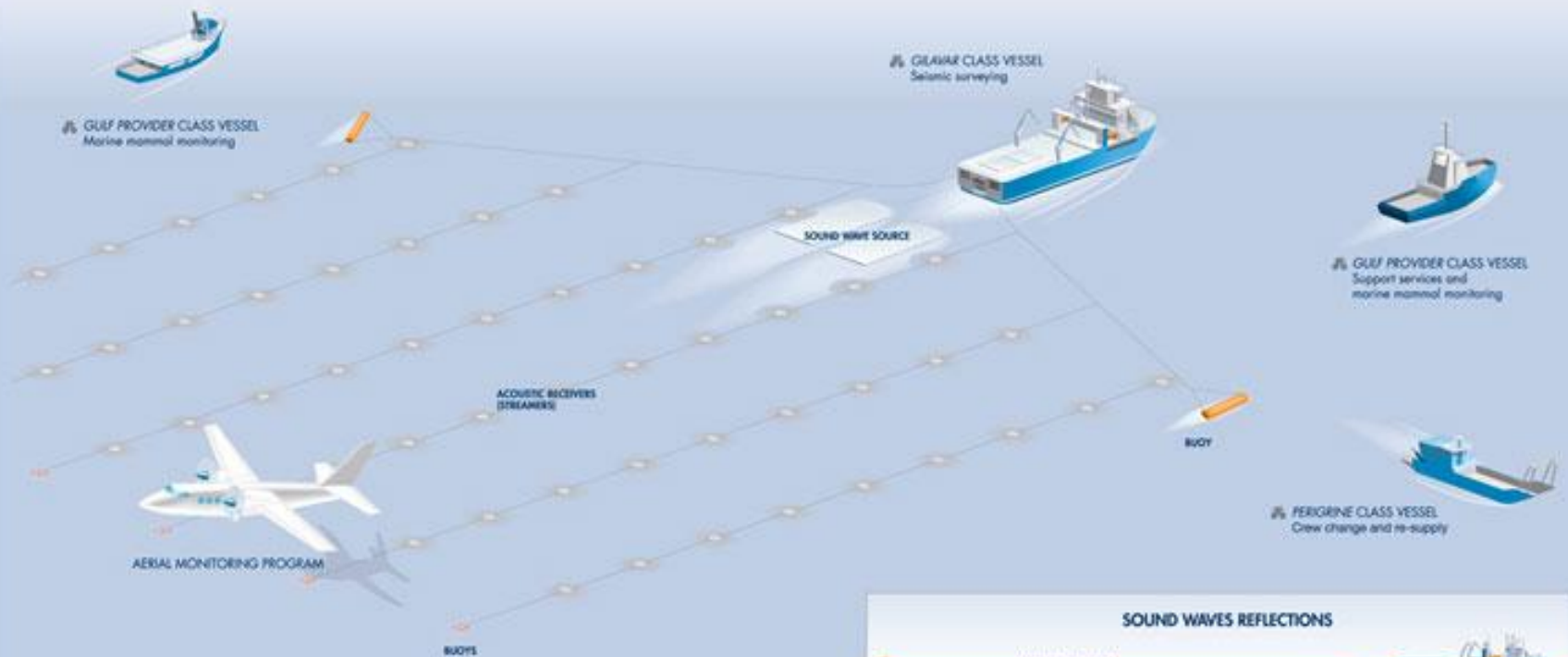
?

- “Exploit the resources”
- “need to get a Balance”
- “Synergistic Sustainable Development.”

Unsustainable models

- Endangered species
- Reefs in crisis
- Fish stocks collapsing
- Extinct species
- Water quality
- Land based runoff
- Climate change
- Financial crisis
- Oil industry
- Conventional farming
- Deforestation
- Unsustainable fishing practices
- Commercial whaling
- “...shall not eat (fish) without scales”

2008 3D SEISMIC SURVEY PROGRAM in the BEAUFORT and CHUKCHI SEAS





Natural predators?

**Extreme behavior:
Adults abandoning calf
after boats trap them**



Observations @ W W training

- All Fishermen present expressed concern for welfare of whales
- 'large operator' argue that he needs Whale Chase to show numbers of passengers and to keep cruise ship contract and to repeat trip in afternoon.
- 'Smaller operator' claims he gets better client satisfaction whale watching.
- Fisherman: "whale chasing worse than whaling"
- Caribbean scientist "need to restrict operators"
- Operators unable to interpret whale behavior



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What do you see?

Defensive Warning behavior



Tail slapping jaw while others flee

Quarries:

Unsustainable destructive land use



Brief History



All invested
But

Few Benefiting



Photo by Dr Fitzroy Armour

**80% of Govt. expenditure on tourism spent on sector that
generates only 20% of revenue
unlike taxi association
few benefit from marine assets**



Photo by Dr Fitzroy Armour

Learning “Synergistic Sustainable Development.” from observing creation



Gather around calf

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Fishing & Dive industries
Benefit from
Whales who are the tillers of the
ocean
nutrients

Successful example

- Taxi association
- Common certification, marketing, prices & management
- Owners allowed 1 bus
- Buses on roster
- Certified tour driver
- Certified tour guide
- ➔
- **Sense of ownership**



Fisheries cooperatives

- Common facilities
- Common certification, purchases, marketing, prices & management
- Common FAD's
- Shared catches
- Common repair shop
- →
- **Sense of ownership**



Agriculture examples

- DOAM
- Herbal business association
- Fair trade
- ➔
- Common facilities
- Common certification, purchases, marketing, prices & management



An underwater photograph showing a person in red swim trunks swimming horizontally on the left side of the frame. To the right, a large whale is swimming in the same direction, its head and part of its body visible. The water is a deep blue with some light reflecting off the surface.

Green Ventures Ltd
Synergistic Sustainable development

Years of
Facing the Challenges

Head on

Multiplier effect

- “Heads in beds”
- Local boat manufactures
- Local educated operators
- Youth development
- Develop non invasive/intrusive scientists
- Dignified Meaningful employment

Green Ventures Ltd. working with

- Bee keepers
- DOAM
- Herbal business association
- Women's bureau
- Scouts association
- Sea moss farmers
- Citrus certification program
- CARDI
- Marine & Agri. Researcher
- Natural botanicals



Innovative conservation and education projects for communities



Marine conservation



Floating classroom

Education
&
Training

Dignified
Employment

Developing
Local Researchers
Universities
Colleges

Education system:

- Preschool
- Primary School
- Secondary
- Tertiary
- Adult Education

Whale Watching Cooperatives

Common:
Funding
Equipment
Facilities
Management
Marketing

Shared
captains

Crew/guides
on roster

Shared
engineers

Marine Tourism Associations

Low Cost Funding
Common pricing
Shared Facilities
Management
Marketing
Roster resource use

Whale
&
Dolphin
Watching

Dive
Snorkel

Glass bottom
&
Pleasure cruises

Renewable energy



Wind & Solar
Vs
Petroleum
Propulsion &
Electrification



Fishing
Water taxis

Whale & Dolphin
watching

Dive
Glass bottom
Yachting
Pleasure cruises

Renewable energy



Floating classrooms whales, Dolphins, Turtles and Reefs

Renewable energy

Floating classroom

- Sun 21
- 300 students
- Educational tour
- 7000 miles w/out a drop of oil
- Minimal sound pollution





Photo by Dr Fitzroy Armour

Dive industry
Common resource

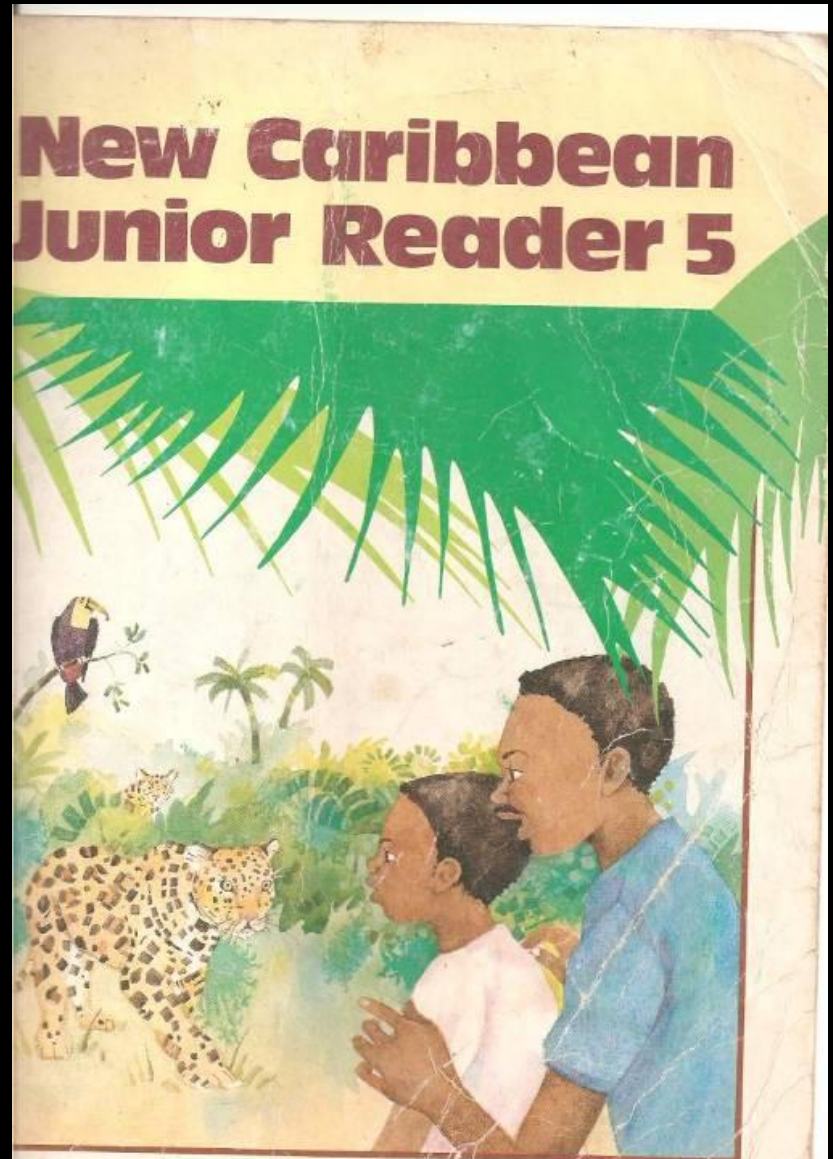
For the Children's sake

Photo courtesy Hana Lieder



Primary School curriculum

- School text book
- Documentaries
- Home work/Projects
- Practical application
- Cause and effect
- Assignments
- Floating classrooms





Watching Whales Off Dominica

Whales are huge creatures which once upon a time terrified sailors. Now we know that they are gentle giants, the world's biggest and most fascinating creatures. Once they were almost hunted to extinction. Now we are learning to appreciate them and to protect them. They come to the waters around Dominica to calve and that is where some people are lucky to have the chance to see them.

This deep and sheltered coast is enjoyed by many Cetaceans or whales including the Singing Humpback and the Sie, both Baleen whales, which migrate from the North Atlantic to mate and calve between May and October. There are also many toothed whales sighted throughout the year mating, nursing, calving, playing and diving to the great deeps to feed on squid and other deep-water creatures.

The resident toothed whales include the Sperm whale, the largest toothed animal to exist, Pygmy Sperm Whale, the Orca, the False Killer Whale, the Pygmy Killer Whale, the Pilot Killer Whale, the Pilot Whale, the Spotted Dolphin, the Bottlenose Dolphin and others.

Due to the gentle sea and extremely deep waters, Dominica has ideal and comfortable whale-watching conditions. Whales are gentle and curious toward humans. I have seen a Sperm Whale cow nursing three calves while the other pod members dive to feed. One cow/nursemaid tends to as many as three calves while the other members of the pod go off on their dives for as long as one hour and as deep as 6,000 feet.

On this particular day the small group consisted of keen first time whale watchers. We cast off from the jetty for an "afternoon till sunset" tour on the protected west coast of Dominica. We were not far from shore when our first whale was sighted.

Unmistakable against the still ocean, the whale's waterspout rose quickly, only to turn into a miniature rainbow. Again the spout rose at a distinct forty-five degree angle to the surface. The angle and repeated spouting meant that it must be a Sperm Whale. On approaching, we realised that there were also two small spouts – a cow and two calves. The calves were anxiously nuzzling her until she responded by tilting on her side to begin nursing them.

Curriculum in primary schools

Nursing now over, the calves prepared to join the adults. Swimming slowly the cow bobbed her head twice before finally arching her back. The increased weight of her tail leaving the water started her deep dive.

Unable to dive to such depths, the calves are often left at the surface to play. Each calf, being at least twenty feet in length, enjoys the comfort of fearing nothing in the entire ocean except the Orca and of course the heartless whaler, who would harpoon them in an effort to lure the other whales to the slaughter.

Attracted to the drifting dive boat, both calves spent thirty minutes swimming around and upside down under the boat, competing to get closer to us. Unlike the Dolphins that beam their sonar from their melon foreheads, the Sperm Whales do so from the chest so they need to swim sideways or upside down when investigating the boat or snorkellers. Extreme care is necessary and any contact must be started by the whales.

On hearing the returning of the pod the calves quickly shifted attention, swimming to greet the first arrival. One by one they broke the surface until ten individual spouts were counted forming a raft.

Aware of their curious behaviour, we gently eased into the water with only a mask and snorkel, holding on to the lines floating at the stern of my 41 foot dive boat. Floating at the surface, we were overwhelmed by the sonar clicks of the approaching pod of whales. The curious whales wanted a much closer look at us in the water.

These tours are not only educational and fun, but also give visitors the opportunity to contribute to fund raising to help conservation.

Snorkelling with a Sperm whale.



Reaching Children in schools

Acknowledgements

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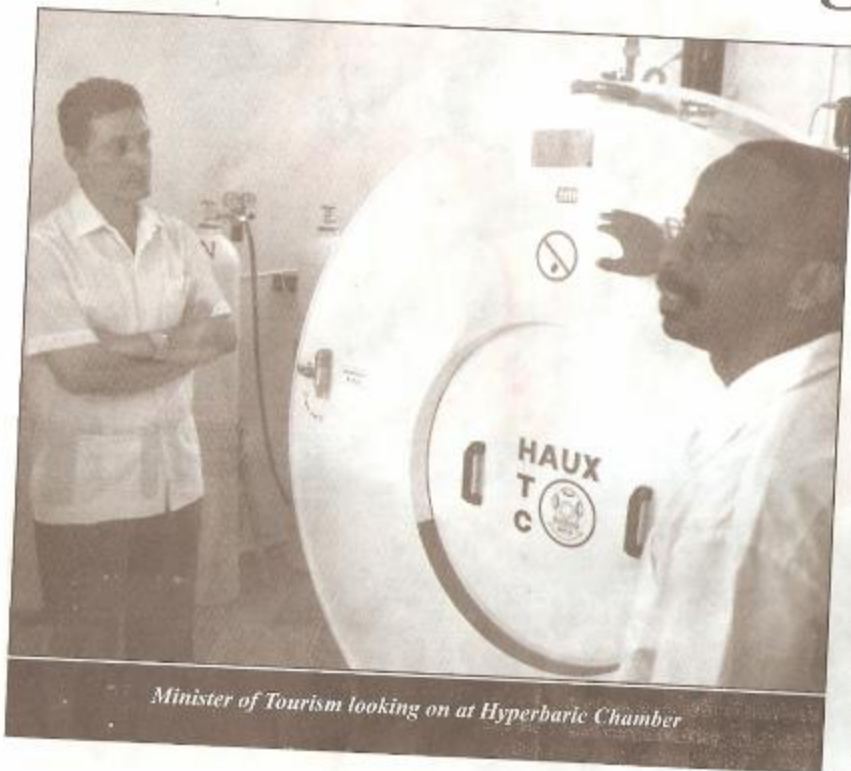
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Hyperbaric chamber

Major breakthrough for tourism sector



Minister of Tourism looking on at Hyperbaric Chamber

The Tourism Sector in Dominica has received a major boost with the installation of a Hyperbaric Chamber at the Princess Margaret Hospital.

Funded by the European Union under the Eco-Tourism Development Programme at a cost of \$750,000, the well equipped and functional Hyperbaric Chamber will be used for treating emergencies associated with scuba diving.

Speaking at the Handing Over of the Chamber on Monday, Chief Medical Officer (acting), Dr. David Johnson stated that the Facility "is a significant boost to the Tourism and Health Sectors which will translate in increased revenue to the island from the Scuba Diving Tourism Industry and

will improve the quality of care offered at the Princess Margaret Hospital."

The Ministry of Health and Social Security official listed the other functions the Hyperbaric Chamber will perform:

The Chamber will be used as a marketing tool to scuba diving travellers;

With a functional chamber there will be no need for air evacuation to neighbouring islands for treating their

medical emergencies related to diving.

The Chamber will be used in treating other non-diving medical conditions, such as burns, diabetic wounds, selected surgical wounds and other medical conditions that require increased oxygen saturation.

**BY PRESS SECRETARY
SEAN DOUGLAS**



**KEEP
DOMINICA
CLEAN
AND
GREEN**

Dignified employment

F Armour spent 2 yrs of negotiating to get 10 Dominicans trained as Hyperbaric chamber operators & Attendants by DAN



Tobago

working with
Schools

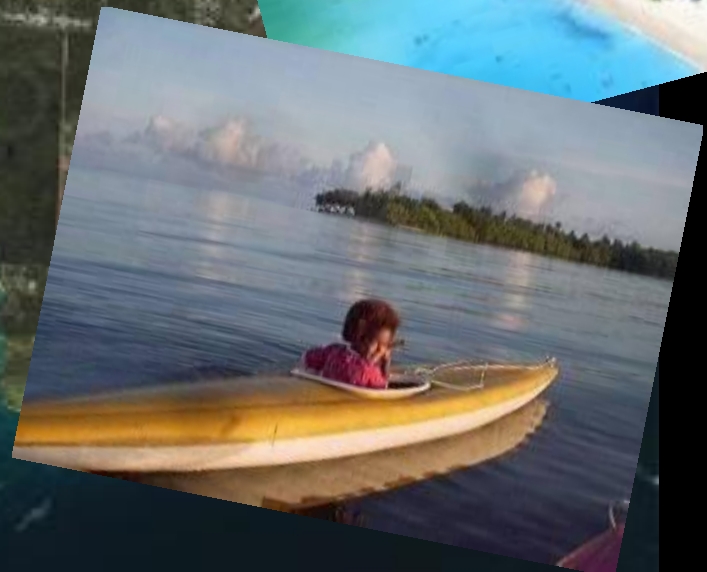
Bucoo reef trust

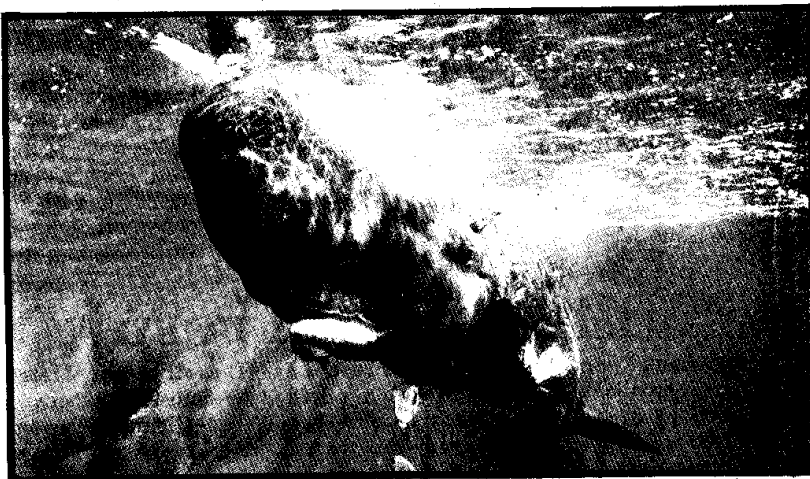
Sea moss farmers

Bee keepers

Environment Tobago

Kilgwyn Beach and Mangrove clean up
27 trucks garbage removed in 2 week ends





• Sperm whale calf off the west coast
- Photo: Fitzroy Armour; Anchorage Dive Centres

Humans more important than whales - P.M.

Prime Minister Eugenia Charles has called on the Boston-based International Wildlife Coalition to find out all the facts before jumping to conclusions, and called on them to be interested in the human beings in the picture who are being pushed to the side on the whaling issue because "certain countries want to control it and leave us out of it".

She said nobody was concerned about the

and the other Windward islands, said her government is not against having a special area for whales in Antarctica. She said her government requires all the scientific information before taking any decision, particularly since the chairman of the committee which deals with the scientific information resigned because he stated the Whaling Commission was not using information that had

TOURISM THREATENED

The Boston-based International Wildlife Coalition has vowed to begin an international campaign to boycott the tourism industries of St. Vincent, St. Lucia, Grenada and Dominica - nations backing Japan's opposition to a ban on commercial whaling.

Coalition President, Dan Morast told the Caribbean Environmental Reporters Network that the unanimous vote was taken at an emergency board meeting because of what he described as the "blatant collaboration between Japan and St. Lucia, St. Vincent, Grenada and Dominica".

According to him, this latest collaboration occurred at a meeting of the International Whaling Commission held in Australia, February 21 to 25. That meeting was called to discuss the French proposal for a no-whaling sanctuary in Antarctica which Japan opposes. The vote on the sanctuary is expected at the Interna-

tional Whaling Commission. Though neither has resulted, Morast said his organization can no longer sit by and watch Japan manipulate votes.

Morast said they expect to spend 81,000 EC dollars (30,000 US dollars) in the first three months of the boycott campaign.

The plan calls for tourism marketing considerations, tourism promotion

ibbean countries were granted fisheries development projects and each given the 43,000 pound sterling IWC membership dues to vote against commercial whaling.

Dominica and Grenada recently announced Japanese fisheries projects. Tokyo promised fisheries projects to Prime Minister Eugenia Charles on a visit to Tokyo last month. The plan met

both to try to see the whales. This



With expert local guidance it is possible to get close to sperm whales.

Photo courtesy: Fitzroy Armour, Anchorage Dive Centre.

and hang his hydrophone under the boat. All he asks his whale watchers is for a little petrol money and he also sells some excellent tapes. Paul's informal excursions should be returned 'whale listening' tours.

On Dominica, Fitzroy Armour is a crack naturalist at finding the resident sperm whales along the lee shore, west of Roseau. He, too, uses

way, visitors concentrate on the sounds which come into his small boat through high quality hydrophones and speakers. Even when the whales are a mile or more away, well out of sighting range, the sounds coming into the boat can be loud. This method of experiencing whales does not require calm water or long-distance travel. He simply has to slip offshore

whales, but he has spotted and spotted dolphins (95 percent), short-finned pilot whales (40 percent), false killer whales and pygmy sperm whales (30 percent). Occasional sightings are also made of bottlenose, Risso's, and the rare Fraser's dolphins, orcas, dwarf sperm whales and melon-headed whales. And all this for the price of £33 for a three- to four-hour excursion. And after a day with the whales, he'll direct you to the island's lush tropical rain forest with outstanding birdlife including numerous parrots and other natural wonders - a short distance from the main town.

Both Fitzroy and Paul are on the leading edge of whale watching in the Caribbean. Whale watching is also becoming a big-time operation in the Dominican Republic, where 15,200 people a year watch whales at Samana Bay and in the Bahamas where 1,300 people a year see and sometimes swim with spotted dolphins. In the British Virgin Islands and on Dominica, whale watching happens on a smaller scale with two or three operators and fewer than a thousand whale watchers a year, but it's growing fast. As of 1994, 13 of 24 Caribbean countries and territories offer some formal whale or dolphin



watching. In 1992, 18,900 people - mostly outside visitors - spent an estimated £1.7 million in total revenues on whale-watching tours.

Whale watching - in the Caribbean as elsewhere - started out as a pleasant pastime. The first whale watchers who paid \$1 US to see gray whales off of southern California in the 1950s would be very surprised to see how widespread and 'political' it has become today. It is still a pleasant activity, of course, but it is also much more. Today, with Japan, Norway and Iceland wanting to resume whaling, whale watching is providing solid economic, cultural, recreational, scientific and educational arguments against



Photo by Dr Fitzroy Armour



Turtle protection

Solutions: Innovative marine conservation promoting:

- Education
- Projects for communities
- Renewable Energy
- A Marine resource whale watchers cooperative and associations
- Local Non destructive Research
- Appeal to political mandate
- Poverty alleviation
- Raised standard of living
- Sense of ownership
- Synergistic sustainable development.
- Stewardship

Conversion



- Recruit Fishers
- Recruit Whalers
- Reef wreckers
- Whale chasers

Noble profession of sustainable Fishers



Photo by Dr Fitzroy Armour



Challenges

- Natural disaster
- Human resistance

Miraculously survived Hurricane Omar Rebuilding her for the 2nd time...dedicated to protecting God given blessings



**Challenge is to defeat the Alternative.
Politically correct=Poverty Alleviation**



Photo by Dr Fitzroy Armour

A photograph of a person swimming underwater next to a large whale. The person is on the left, wearing a red swimsuit, and the whale is on the right, with its head and part of its body visible. The water is clear blue.

Green Ventures Ltd
Synergistic Sustainable development

Years of
Facing the Challenges
Head on

For the Children's sake

Photo courtesy Hana Lieder





IFAW award



Thank you

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<http://whaledive.org>



Sharon Jones

- MPhil, BSc.
- Post grad diploma Project management
- Certificate in scientific writing
- Organic farm inspector
- Boat captain/Diver/
- Marine & Agriculture Researcher
- Volunteer Scouts, Women's bureau, Schools, DOAM, Bee keepers, DHTA, Herbal Business association.

Conservationist

Fitzroy Armour MD

- Previous executive sec. Dominica conservation association—
- **Successful lobbyist at 1994 IWC. Dominica's Abstention vote allowed Antarctic whale sanctuary**
- **Whale researcher=Viability of industry**
- **Published whale research in "Caribbean Reader" 1991 primary schools.**
- **1st Caribbean Person to film sperm whales U/W.**
- **1st to use moorings at dive sites**
- **1st to start reef clean up dives**
- **Saved Kilygwin Swamp Tobago=>got volunteers to collect 28 truck loads in two weekends, 500 students on swamp→Project won environmental award.**
- **~300 students. Hosted Solar Atlantic crossing in Dominica leg**
- **Sun 21**
- PADI instructor 20 yrs (1st Dominican dive instructor)
- Pioneer whale watching industry
- Diploma agriculture
- Medical doctor (with two yrs experience years in O&G department as acting registrar)
- Clinical tutor, examiner & PBL Facilitator Ross University school of medicine
- Hyperbaric chamber operator/ DAN referral physician.
- Private pilot single engine aircraft
- Boat captain
- Renewable energy
- Photo voltaic systems design
- Pig farmer
- Husband
- Father of **4 Marine Mammals ;-)**