

Excerpt from Report on Baseline Biodiversity Study of the Marine Area Adjacent to Gros Piton and Petit Piton: Anse L'Ivrogne to Malgretoute. Prepared by Susanna De Beauville-Scott, Department of Fisheries; Peter Moore, OCOD intern; and Keith Mortley, Department of Fisheries for the Saint Lucia World Heritage Committee. January, 1999

These are the summarized results of a study conducted in the marine area surrounding the Pitons, Soufriere, St Lucia. The extent of the study area along the shoreline is from the Anse L'Ivrogne River in the South, to the southern extent of the Malgretoute Beach in the North. The seaward boundary was limited by the steep sloping nature of the shore and therefore, for dive safety, extends to a maximum depth of twenty (20) meters (approximately 20-30 meters from the shoreline).

A total of 121 species of fin-fish were recorded during fish censuses, with species such as *Aulostomus maculatus*, *Chromis cyanea*, *Chromis multilineata*, *Halichoeres garnoti*, *Ocyurus chrysurus*, *Scarus taeniopterus*, *Sparisoma viride* and *Stegastes partitus* being most common, and *Channomuraena vittata*, *Elagatis bipinnulata*, *Hemiramphus brasiliensis*, *Holacanthus ciliaris* and *Tylosurus crocodilis* being least common. Other organisms observed during random swims included species from several groups: algae, cnidaria, molluscs, echinoderms, annelids and arthropods. These individual species are listed in Tables 1-8 below:

Table 1. Species of algae observed in the study area.

Phylum	Species	Common Name
Chlorophyta	<i>Halimeda discoidea</i>	Large leaf watercress algae
Chlorophyta	<i>Halimeda lacrimosa</i>	Bulbous lettuce leaf alga
Chlorophyta	<i>Caulerpa racemosa</i>	Green grape alga
Chlorophyta	<i>Udotea cyathiformis</i>	Mermaid's teacup
Chlorophyta	<i>Ventricaria ventricosa</i>	Sea pearl
Cyanophyta	Not identified	Fuzz ball algae
Phaeophyta	<i>Dictyota sp.</i>	Y Branched algae
Phaeophyta	<i>Hydroclathrus clathratus</i>	Swiss cheese algae
Phaeophyta	<i>Lobophora variegata</i>	Encrusting fan-leaf alga
Rhodophyta	Not identified	Crustose coralline algae
Rhodophyta	<i>Galaxaura sp.</i>	Tubular thicket algae

It is important to note that only macroalgae species were identified. While there may have been several species of microalgae (turf) present in the study area, time and resources did not permit identification of these species.

Table 2. Species of cnidaria (not including corals) observed in the study area.

Order	Species	Common Name
Actinaria	* <i>lucida</i>	Knobby anemone
Actinaria	<i>Lebrunia coralligens</i>	Hidden anemone
Actinaria	<i>Lebrunia danae</i>	Branching anemone
Ceriantharia	<i>Arachnanthus nocturnus</i>	Banded tube-dwelling anemone
Hydroida	<i>Macrorhyncha robusta</i>	Stinging bush hydroid
Hydroida	<i>Gymnangium sp.</i>	Feather hydroid
Hydroida	<i>Halopteris carinata</i>	Thread hydroid
Zoanthidea	<i>Zoanthus pulchellus</i>	Mat zoanthid
Zoanthidea	<i>Palythoa caribaeorum</i>	White encrusting zoanthid
Zoanthidea	<i>Palythoa grandis</i>	Sun zoanthid

* Genera for this species was recently reclassified and is not available

Table 3. Species of corals observed in the study area.

Family	Species	Common Name
Acroporidae	<i>Acropora palmata</i>	Elkhorn coral
Agariciidae	<i>Agaricia humilis</i>	Low relief lettuce coral
Agariciidae	<i>Agaricia agaricites</i>	Lettuce coral
Agariciidae	<i>Agaricia lamarcki</i>	Sheet coral
Anthothelidae	<i>Iciligorgia schrammi</i>	Deep water sea fan
Anthothelidae	<i>Erythropodium caribaeorum</i>	Encrusting gorgonian
Antipathidae	<i>Antipathes lenta</i>	Hairnet black coral
Antipathidae	<i>Antipathes sp.</i>	Black coral
Astrocoeniinae	<i>Stephanocoenia michilini</i>	Blushing star coral
Briareidae	<i>Briareum asbestinum</i>	Corky sea finger
Caryophyllidae	<i>Catalaphyllia jardinei</i>	Elegant coral
Caryophyllidae	<i>Eusmilia fastigiata</i>	Smooth flower coral
Ellisellidae	<i>Ellisella barbadensis</i>	Devil's sea whip
Faviidae	<i>Favia fragum</i>	Golf ball coral
Faviidae	<i>Montastrea annularis</i>	Boulder star coral
Faviidae	<i>Cladocora arbuscula</i>	Tube coral
Faviidae	<i>Montastrea cavernosa</i>	Great star coral
Faviidae	<i>Diplora strigosa</i>	Symmetrical brain coral
Faviidae	<i>Diplora clivosa</i>	Knobby brain coral
Faviidae	<i>Diplora labyrinthiformis</i>	Grooved brain coral
Faviidae	<i>Manicina areolata</i>	Rose coral
Faviidae	<i>Colpophyllia natans</i>	Boulder brain coral
Faviidae	<i>Meandrina brasiliensis</i>	Rose coral
Gorgoniidae	<i>Pterogorgia citrina</i>	Yellow sea whip
Gorgoniidae	<i>Pseudopterogorgia sp.</i>	Sea plume
Gorgoniidae	<i>Gorgonia mariae</i>	Wide-mesh sea fan
Gorgoniidae	<i>Gorgonia ventalina</i>	Sea fan

Meandrinidae	<i>Dendrogyra cylindrus</i>	Pillar coral
Meandrinidae	<i>Meandrina meandrites</i>	Maze coral
Meandrinidae	<i>Dichocoenia stokesii</i>	Elliptical star coral
Milliporidae	<i>Millepora alcicornis</i>	Branching fire coral
Milliporidae	<i>Millepora squarrosa</i>	Box fire coral
Mussidae	<i>Mussa angulosa</i>	Spiny flower coral
Mussidae	<i>Isophyllastrea rigida</i>	Rough star coral
Mussidae	<i>Mycetophyllia danaana</i>	Low ridge cactus coral
Mussidae	<i>Scolymia sp.</i>	Disk coral
Oculinidae	<i>Oculina diffusa</i>	Diffuse Ivory bush coral
Plexauridae	<i>Eunicea sp.</i>	Sea rod
Plexauridae	<i>Plexaura flexuosa</i>	Bent sea rod
Plexauridae	<i>Pseudoplexaura sp.</i>	Porous sea rod
Plexauridae	<i>Plexaurella sp.</i>	Slit pore sea rod
Pocilloporidae	<i>Madracis mirabilis</i>	Yellow pencil coral
Pocilloporidae	<i>Madracis decactis</i>	Ten ray star coral
Poritidae	<i>Porites colonensis</i>	Honey comb plate coral
Poritidae	<i>Porites asterooides</i>	Mustard hill coral
Poritidae	<i>Porites porites</i>	Finger coral
Poritidae	<i>Porites divaricata</i>	Finger coral
Seriatoporidae	<i>Madracis pharensis</i>	Encrusting star coral
Siderastreidae	<i>Siderastrea radians</i>	Lesser starlet coral
Siderastreidae	<i>Siderastrea siderea</i>	Massive starlet coral

Table 4. Species of molluscs observed in the study area.

Family	Species	Common Name
Amphineura (class)	<i>Acanthopleura granulata</i>	Fuzzy chiton
Limidae	<i>Lima scabra</i>	Rough file clam
Loliginidae	<i>Sepioteuthis sepioidea</i>	Caribbean reef squid
Octopodidae	<i>Octopus briareus</i>	Caribbean reef octopus
Strombidae	<i>Strombus gigas</i>	Queen conch
Strombidae	<i>Strombus ranius</i>	Hawkwing conch
Cypraeidae	<i>Cypraea cinerea</i>	Atlantic gray cowrie
Ovulidae	<i>Cyphoma gibbosum</i>	Flamingo tongue

Table 5. Species of porifera observed in the study area.

Class	Species	Common Name
Demospongia	<i>Pseudoceratina crassa</i>	Branching tube sponge
Demospongia	<i>Aplysina fistularis</i>	Yellow tube sponge
Demospongia	<i>Ages conifera</i>	Brown tube sponge
Demospongia	<i>Callyspongia vaginalis</i>	Branching vase sponge
Demospongia	<i>Callyspongia plicifera</i>	Azure vase sponge
Demospongia	<i>Xestospongia muta</i>	Giant barrel sponge
Demospongia	<i>Spheciopsis vesparium</i>	Loggerhead sponge
Demospongia	<i>Iotrochota birotulata</i>	Green finger sponge
Demospongia	<i>Halisarca sp.</i>	Blue encrusting sponge
Demospongia	<i>Amphimedon compressa</i>	Erect rope sponge
Demospongia	<i>Siphonodictyon coralliphagum</i>	Boring sponge
Demospongia	<i>Ectoplasie ferox</i>	Brown encrusting octopus sponge
Demospongia	<i>Siphonodictyon coralliphagum</i>	Variable boring sponge
Demospongia	<i>Niphates digitalis</i>	Pink vase sponge

In addition to the fourteen (14) species of sponges recorded in Table 5, nineteen (19) other possible species were observed, but could not be identified.

Table 6. Species of echinoderms observed in the study area.

Class	Species	Common Name
Crinoidea	<i>Davidaster rubiginosa</i>	Golden crinoid
Crinoidea	<i>Analcidometra armata</i>	Swimming crinoid
Echinoidea	<i>Diadema antillarum</i>	Long-spined sea urchin
Echinoidea	<i>Tripneustes ventricosus</i>	West Indian sea egg
Echinoidea	<i>Meoma ventricosa</i>	Red heart urchin
Echinoidea	<i>Echinometra viridis</i>	Reef urchin
Echinoidea	<i>Eucidaris tribuloides</i>	Slate-pencil sea urchin
Ophiuroidea	<i>Schizostella bifurcata</i>	Sea rod basket star
Ophiuroidea	<i>Astrophyton muricatum</i>	Giant basket star
Holothuroidea	<i>Holothuria mexicana</i>	Donkey dung sea cucumber
Ophiuroidea	<i>Ophiothrix suensonii</i>	Sponge brittle star
Ophiuroidea	<i>Ophionereis reticulata</i>	Reticulated brittle star

In addition to the eleven (11) echinoderms identified in Table 6, one other species of sea cucumber was observed (possibly *Euapta lappa*), but not definitively identified.

Table 7. Species of arthropods observed in the study area.

Family	Species	Common Name
Not known	<i>Thoracica sp.</i>	Sessile barnacles
Diogenidae	<i>Paguristes puncticeps</i>	White speckled hermit
Diogenidae	<i>Paguristes cadenatia</i>	Red reef hermit
Graspidae	<i>Graspidae sp.</i>	Rock runners/spray crabs
Majidae	<i>Stenorhynchus seticornis</i>	Yellowline arrow crab
Majidae	<i>Mithrax pilosus</i>	Hairy clinging crab
Palaemonidae	<i>Periclimenes sp.</i>	Cleaning shrimp
Palinuridae	<i>Panulirus argus</i>	Caribbean spiny lobster
Palinuridae	<i>Panulirus guttatus</i>	Spotted spiny lobster
Palinuridae	<i>Justitia longimanus</i>	Red band lobster
Scyllaridae	<i>Scyllarides sp.</i>	Slipper lobster
Portunidae	<i>Potunus sebae</i>	Ocellate swimming crab
Rhynchocinetidae	<i>Rhynchocinetes rigens</i>	Red night shrimp
Stenopodidea	<i>Stenopus hispidus</i>	Banded coral shrimp

Table 8. Species of annelids observed in the study area.

Family	Species	Common Name
Amphinomidae	<i>Hermodice carunculata</i>	Bearded fireworm
Sabellidae	<i>Bispira brunnea</i>	Social feather duster
Sabellidae	<i>Bispira variegata</i>	Variegated feather duster
Sabellidae	<i>Anomobaea orstedii</i>	Split-crown feather duster
Sabellidae	<i>Sabellastarte magnifica</i>	Magnificent feather duster
Serpulidae	<i>Spirobranchis giganteus</i>	Christmas tree worm
Serpulidae	<i>Vermiliopsis sp.</i>	Blushing star coral fanworm
Terebellidae	<i>Eupolymnia crassicornis</i>	Spaghetti worm