

The Regional Training Workshop on Methodologies for Coastal Inventories & Information Management

Appendix XV

COUNTRY : Grenada

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SUBJECT : Grenada's Coastal Inventory.

Grenada has a relatively large insular shelf area of 3,100 sq. km. It is quite narrow on the West-Coast extending out an average of 0.5 miles to the 100 fathom line. From the southeast to the northeast, the shelf varies in width between 2.5 miles and 7.5 miles; and extends to the west south-west in a 12 mile wide tongue for about 20 miles. Depths on the shelf vary from 20 - 40 fathoms with average depths of 15 -20 fathoms; in the Grenadines the shelf is from 10 - 30 fathoms deep over the greater part of the area. The dominant currents flow from the east south-east.

LAND USE / COASTAL RESOURCES

The Land Use map has information on four (4) coastal resources, which are:

- (a) Beaches
- (b) Mangroves
- (c) saline areas and
- (d) swamps

This information covers their areas in hectares and/or acres, location surrounding vegetation/land use type but does not include any other information on their status.

The present land use map update which uses aerial photo interpretation and field - checks on a watershed and parish basis will only determine the changes that have occurred over the years but no provision is being made to include in the database any additional information on habitats, their status, etc. This update will compliment the last one that was done in 1982.

Concerning coastal resources assessment, these are only evaluated at specific locations, but the data obtained are very detailed making use of maps and GPS positioning done by the Fisheries Division. This information needs only to be digitised and the data computerised. This data included information on seagrass beds, turtle nesting sites, reefs etc.

Three habitats - mangroves, coral reefs and seagrass beds are found in Grenada. Appendix 2 shows distribution of same.

Distribution of habitats

MANGROVE: From Eschweiler (1982) there was a total of 470 acres of mangroves in Grenada. Existing mainly at; Levera Pond, Conference Bay, La Sagesse Bay, and around the Bays and islands from Woburn Bay to Westerhall Bay.

CORAL REEFS: Occurs mainly on the north, east, and south coasts of Grenada. Large bank-barrier reefs occur on the east coast of Carriacou and Petit Martinique; which are strongly dominated by Elkhorn coral in the shallow areas and well developed boulder coral zones on the deeper forereefs. Two small algal ridges occur on the south side of Carriacou: Grenada's "best reef", is reported to be the Molinere Reef on the west coast north of Grand Mal Bay.

SEA GRASS BEDS: Along the ea-,t central and south parts of Grenada's coast and on the west coast of Carriacou.

FISHERIES RESOURCES: Grenada has the second largest shelf area in the O.E.C.S countries as well as substantial fishery resources in comparison to many other Caribbean islands.

The major fishing centres on the island of Grenada are at St. George's, Grand Mal, Gouyave, Victoria, Duquesne Bay, Sauteurs and Grenville. With the exception of Grenville. all is on the west coast. Fishing is also an important activity on Carriacou and Petit Martinique.

MARICULTURE: Seamos (*Gracilaria* Spp; a red alga) is harvested from nature and used as an ingredient in a popular local drink. It seems to grow best on the windward coast.

There are a number of studies, surveys and assessments as well as policy papers done on Grenada's Coastal Resources. There is also an ongoing beach monitoring programme done by the National science and Technology Council (N.S.T.C), Land Use Division, Lands and Survey Division, and Fisheries Division of a number of beaches on Grenada.

The 1991 Country Environmental Profile of Grenada, Survey of Conservation Practices in Lesser Antilles, Environment Management and Land Use Prgrammes, Report on the National Consultation on the Environment are just some of the reports and assessments done. Also the maps reproduced in these reports ar,-- not available at 1:25,000 scales which would enhance digitisation and accuracy.

These reports are located at different departments, ministries and organisations, some as computer files and hardcopy documents.

The main goals and purposes of the inventory and mapping exercises are for:

- (1) management purpose which are important to Fisheries, Tourism, and recreational purposes.
- (2) To avoid over exploitation and to ensure sustainability. This involves management of the activities around these habitats.

Some of the issues taken into consideration during planning and design of the exercise were:

- (1) The importance of these areas for commercial fishery.
- (2) Their importance as nurseries, spawning and foraging habitats.
- (3) Their importance for recreational use.
- (4) The determination to avoid conflicts with the primary goal of sustainability.
- (5) Whether the areas were habitats or have species that are endangered or threatened.

With regards to the types of data that are considered to be of high national priority, most technicians have no ideas since administration most often gives no direction or at times the messages often conflict with each other.

The current use of the data is mainly to help make management decisions; assist government with policy decisions, and advise consultants, developers etc.

PROBLEMS AND ISSUES.

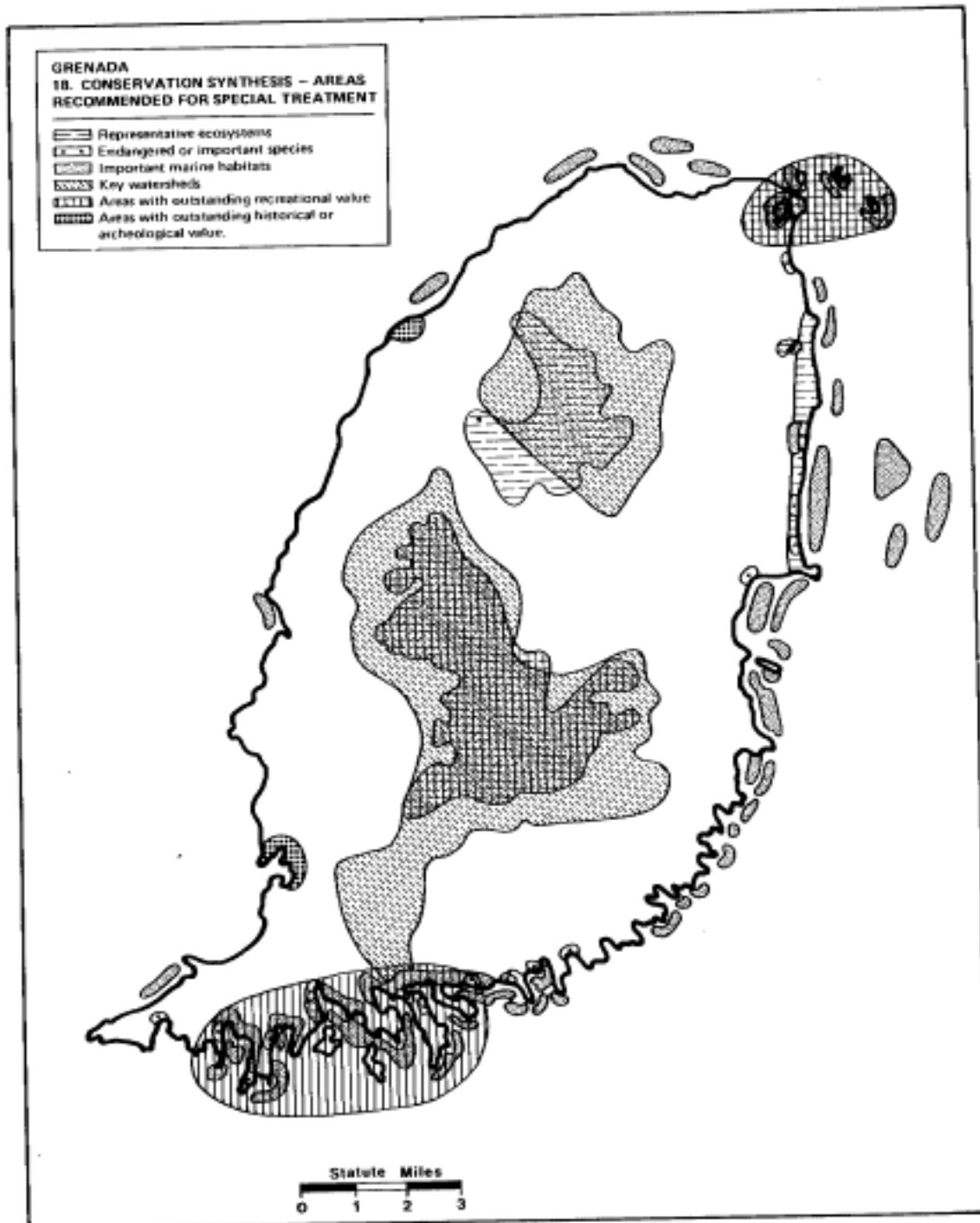
Coastal erosion: Beaches are fairly stable (Deane, et al, 1973). However on Grand Anse Beach it is a critical problem. Beausejour Bay showed an increase in erosion rates along with Sauteurs Bay and Levera Bay.

Sand mining: Extensive mining has caused serious erosion at Beausejour, Palmiste, Conference and Telescope Bays. (Chambers; 1986c).

Dredging and filling: Presently carried out in the St. George's port area. Some of the major constraints experienced are the lack of proper training for those actually doing the work, insufficient human/financial resources, little or no hardware, software (equipment) to map, survey or study these areas, lack of proper framework and guidance to follow.

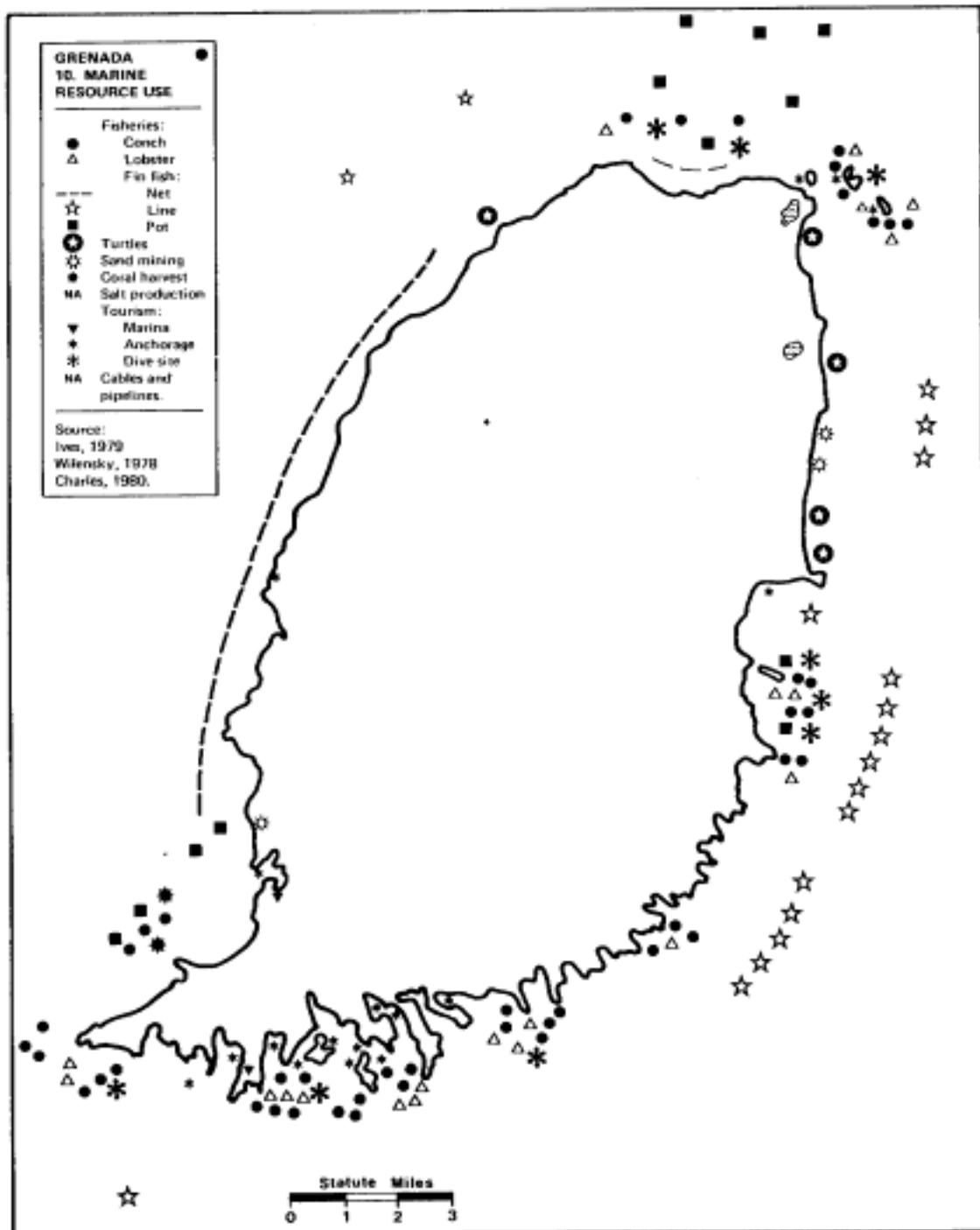
Eastern Caribbean Natural Area Management Program
Survey of Conservation Priorities in the Lesser Antilles

RESOURCE DATA MAPS • GRENADA



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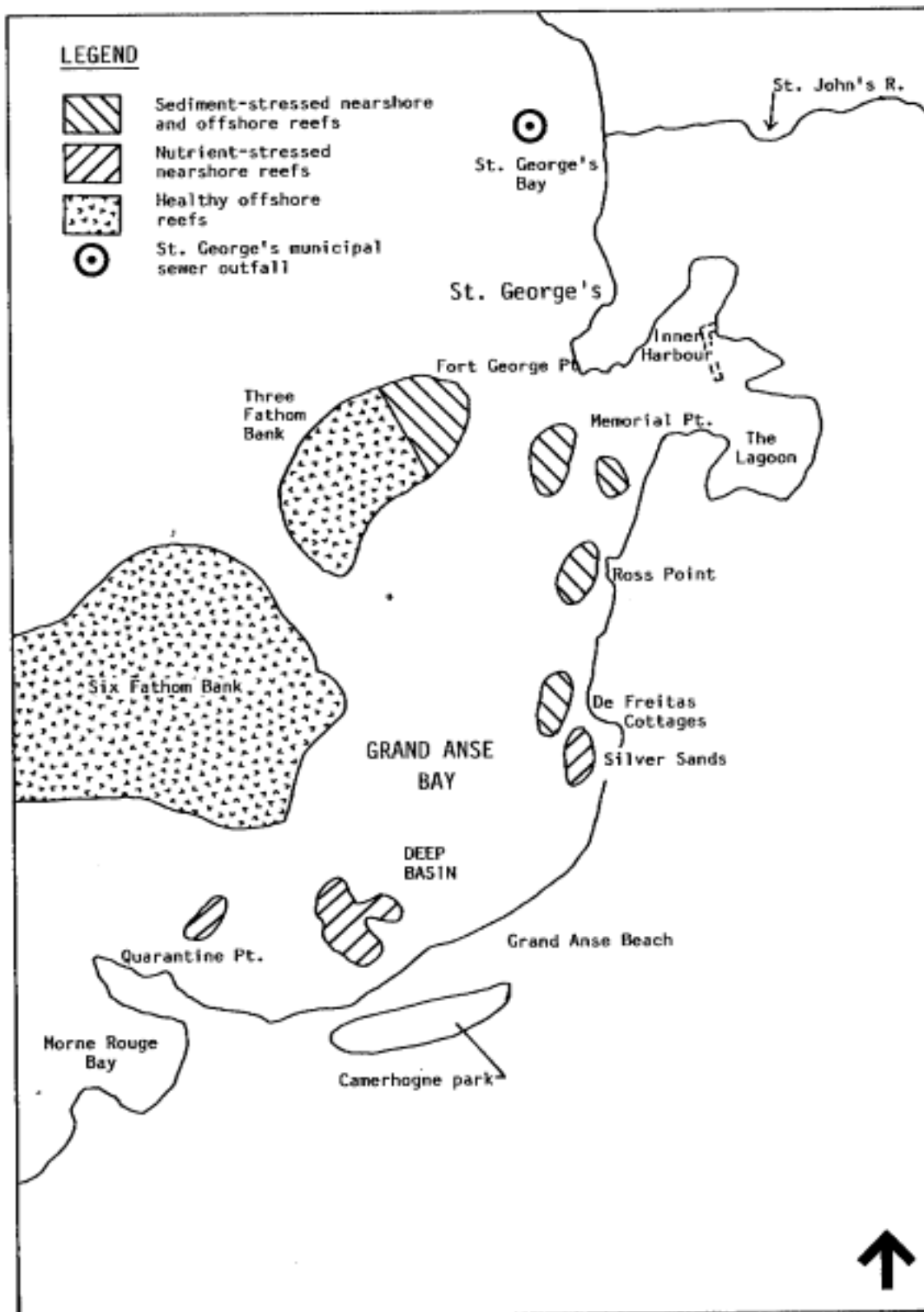


Figure 4.4(3). Condition of Grand Anse Bay reef communities in 1987 (source: Hunte, 1987a).

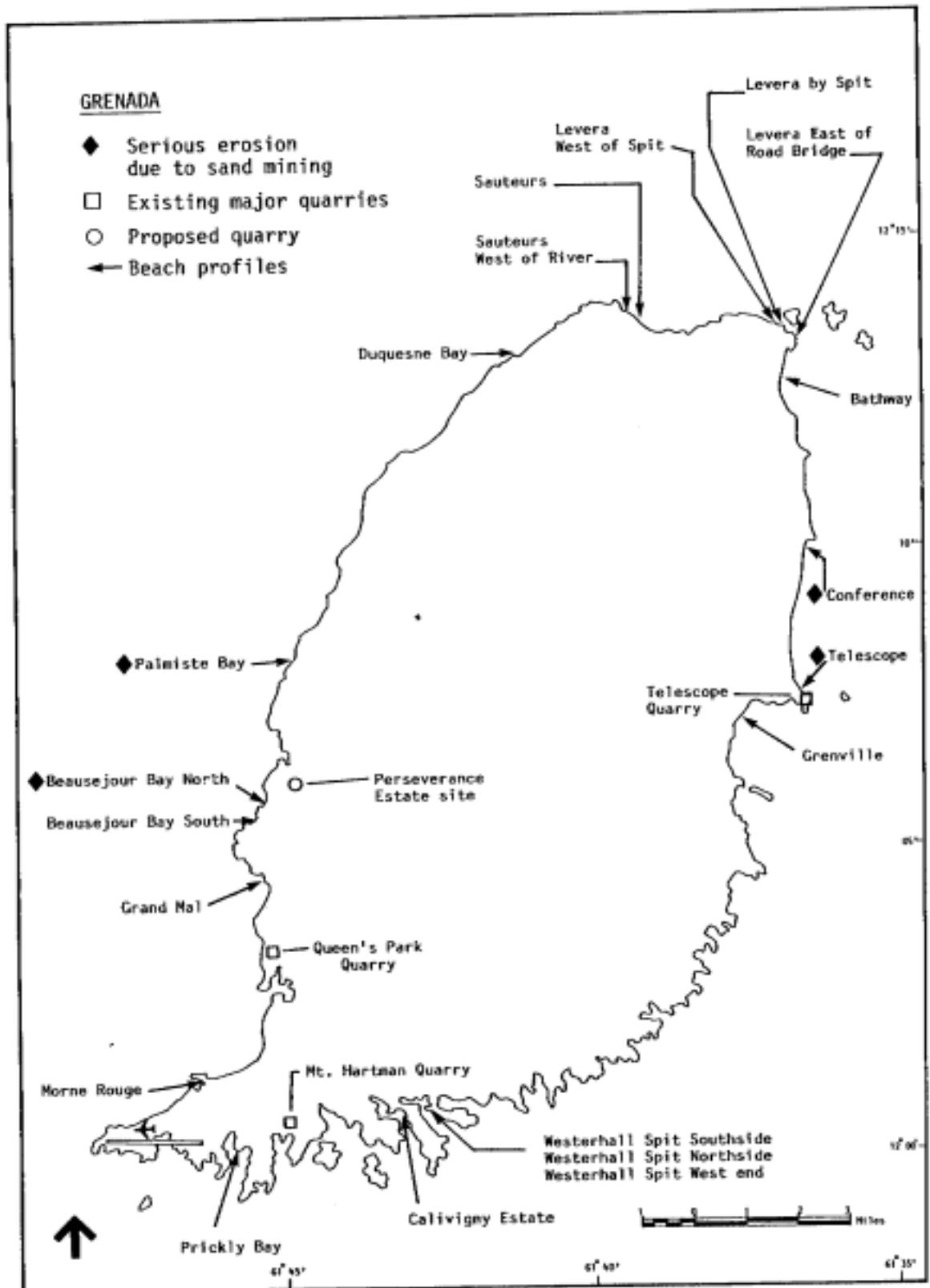


Figure 4.4(7). Location of sand mining, quarries and beach profiles in Grenada outside Grand Anse (source: Cambers, 1987; Andrews, 1988).



Figure 4.4(4). Type, distribution and seasonality of nearshore fisheries (source: Mitchell and Gold, 1982; supplemented by data from J. Finlay, Grenada Fisheries Division, 1989).

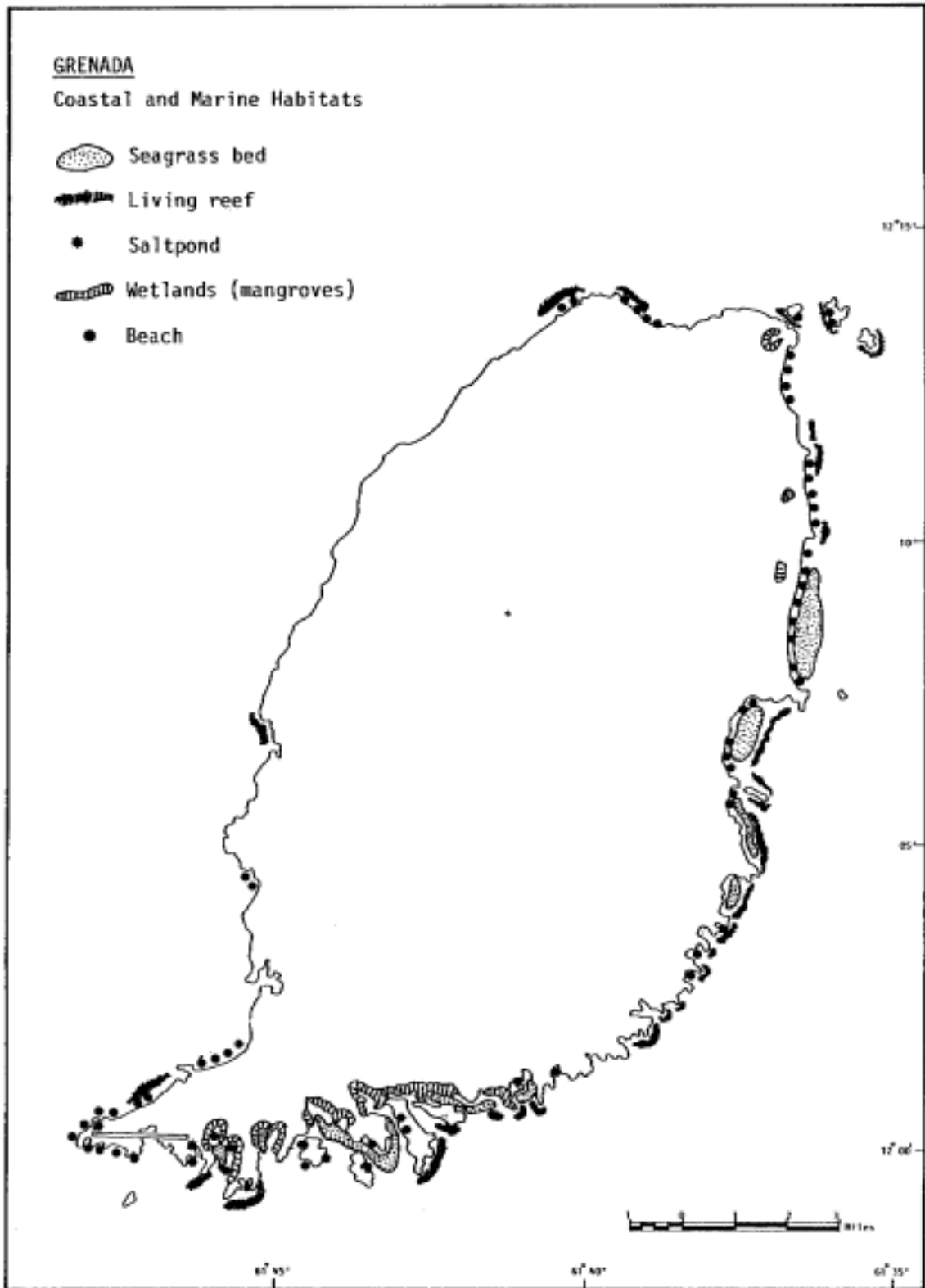


Figure 4.4(2a). Distribution of major coastal and marine habitats, Grenada (source: ECNAMP, 1980a).