



Data from U.S. Geological Survey 1:250,000
Cape Hen and Puerto Rico, 1988, Miscellaneous
Bathymetric data was gathered from National Ocean Survey
Charts 1-2000, 1000, 1100, 1200, 1300, 1400, 1500, 1600,
1700, 1800, 1900, 2000, 2100, 2200, 2300, 2400, 2500,
2600, 2700, 2800, 2900, 3000, 3100, 3200, 3300, 3400,
3500, 3600, 3700, 3800, 3900, 4000, 4100, 4200, 4300,
4400, 4500, 4600, 4700, 4800, 4900, 5000, 5100, 5200,
5300, 5400, 5500, 5600, 5700, 5800, 5900, 6000, 6100,
6200, 6300, 6400, 6500, 6600, 6700, 6800, 6900, 7000,
7100, 7200, 7300, 7400, 7500, 7600, 7700, 7800, 7900,
8000, 8100, 8200, 8300, 8400, 8500, 8600, 8700, 8800,
8900, 9000, 9100, 9200, 9300, 9400, 9500, 9600, 9700,
9800, 9900, 10000.

This information is not intended for navigational purposes.
Polyconic projection, Puerto Rico datum, 1943 adjustment,
200-meter grid ticks based on Puerto Rico coordinate sys-
tem.

EXPLANATION
Isobath in meters—Dashed white isobath
Sediment thickness intervals, in meters
—<1 m—Sediment in this interval (1-1 m)
or above above the shelf rock platform
—1-5 m—Stripes show shallow carbonate banks
—5-10 m
Trackline—Heavy line segment shows location of 3.5-MHz profile
Bathymetric contour—Interval 100 m

EXPLANATION
Silty sand and mud—Fine-grained sand and mud
Nonsaline and shell sand—Dark gray to olive-gray, fine- to medium-
grained sand with shell fragments
Silty clay and clay—Dark gray to olive-gray, contains some
very fine-grained sand, shell fragments, and forams
Calcareous sand—Fine to coarse-grained, yellowish, contains forams,
shell, and coral fragments, pebbles, and shells
Gravelly sand—Fine to coarse-grained, yellowish and sedimentary rock
fragments
Shallow carbonate bank or reef—Commonly covered by sediment-
retaining organisms
Calcareous mud—Greenish-gray, contains shell fragments
Hardground—Coral-encrusted sediment
Contact
● Sediment sample locality

DISCUSSION
INTRODUCTION
The map shows the thickness and composition of unconsolidated sediment cover on the insular shelf off southwestern Puerto Rico, from Mayaguez to Cabo Rojo. The area was examined as part of a larger project conducted by the U.S. Geological Survey (USGS) to map the insular shelf off southwestern Puerto Rico, a scale of 1:400,000. Our purpose in this study was to characterize and map the distribution of sediment cover on the insular shelf off southwestern Puerto Rico, from Mayaguez to Cabo Rojo, and to map the distribution of sediment cover on the insular shelf off southwestern Puerto Rico, from Mayaguez to Cabo Rojo.

PREVIOUS WORK
Bottom sediment properties of the Cabo Rojo area have been studied by Grewe and Trumbull (1978), Stalker (1980), Trumbull and Trine (1982), and Forman (1978). We used their data and added our own profiles and samples from the insular shelf off southwestern Puerto Rico. Our study was conducted in the insular shelf off southwestern Puerto Rico, from Mayaguez to Cabo Rojo, and to map the distribution of sediment cover on the insular shelf off southwestern Puerto Rico, from Mayaguez to Cabo Rojo.

COASTLINE
The southwestern coast of Puerto Rico is characterized by low wave-energy conditions. The coast is on the lee of windward-facing trade winds, and the insular shelf is a broad and shallow platform, as much as 20 km wide and 10 to 20 m deep, that offers protection from storm surges. As a result, the coast is mostly low lying and sandy. Rocky headlands comprise small embayments that are fringed with mangroves.

EXPLANATION
Calcium carbonate, in percent
—98-100 percent
—94-98 percent
—88-94 percent
—84-88 percent
● Sediment sample locality
Bathymetric contour—Interval 100 m

FIGURE 4—Calcium carbonate distribution on the insular shelf off southwestern Puerto Rico. It is adapted in part from Shidlow (1980), Trumbull and Trine (1982), and Schwendener and others (1976). For most of the map, values have been taken from the reference given above. All sediment sample localities are shown on the map.

MARINE GEOLOGIC MAP OF THE SOUTHWESTERN INSULAR SHELF OF PUERTO RICO—MAYAGUEZ TO CABO ROJO

By
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