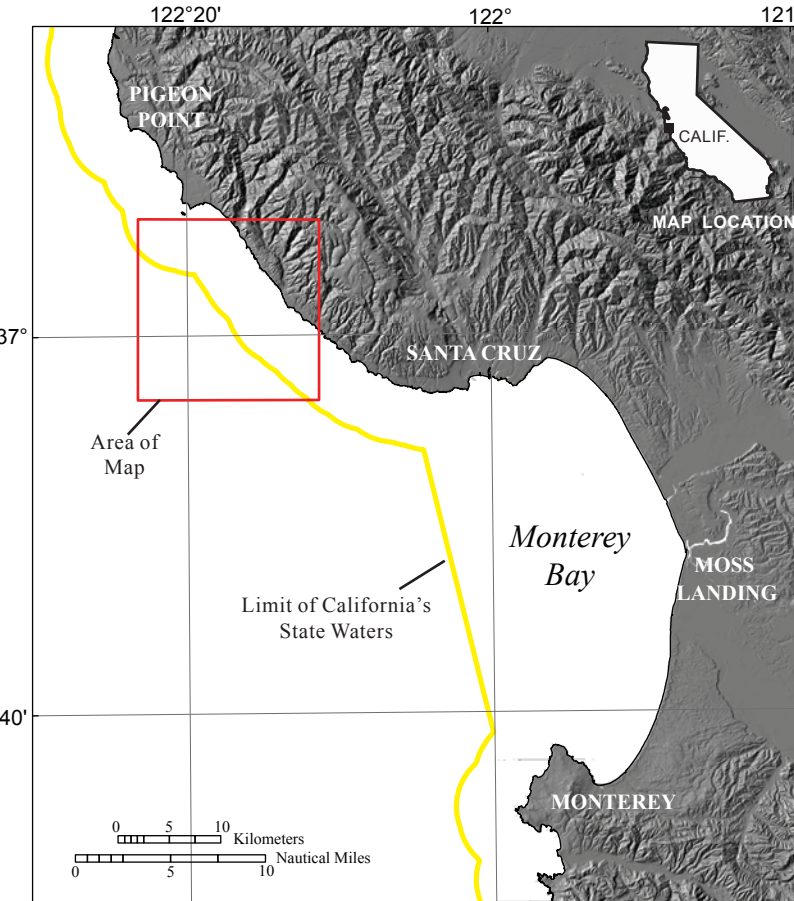


DISCUSSION

This seafloor-character map of the Offshore of Scott Creek map area in central California was produced using video-supervised, maximum-likelihood classification of the bathymetry and backscatter (intensity of return) signals from sonar systems (a summary of the video data collected for the purpose of supervising the classification is shown on sheet 6). Rugosity (a GIS-derived characterization of roughness) and backscatter intensity were used as variants in the classification. The interpreted classifications were then draped over shaded-relief bathymetry (see sheet 2). The substrate classes mapped in this area have been divided into the following California Marine Life Protection Act depth zones: Depth Zone 2 (intertidal to 30 m), and Depth Zone 3 (30 to 100 m). In addition, the following slope classes are represented on this map (Central and Marine Ecological Classification Scheme slope zones are shown in parentheses): Slope Class 1, 0° to 5° (flat), and Slope Class 2, 5° to 30° (steeply sloping to overhanging), are not present in this map area.

Fine- to medium-grained smooth sediment (sand and mud) makes up 80.6 percent (103.2 km²) of the map area: 9.1 percent (11.7 km²) is in Depth Zone 2, and 71.5 percent (91.5 km²) is in Depth Zone 3. Mixed smooth sediment (sand and gravel) and rock (that is, sediment typically forming a veneer over bedrock, or rock outcrops having little to no relief) make up 8.1 percent (10.3 km²) of the map area: 2.7 percent (3.5 km²) is in Depth Zone 2, and 5.4 percent (6.8 km²) is in Depth Zone 3. Rock and boulder, rugose (rock and boulder outcrops having high surficial



complexity) makes up 10.4 percent (13.3 km²) of the map area: 7.4 percent (9.4 km²) is in Depth Zone 2, and 3.0 percent (3.9 km²) is in Depth Zone 3. Medium- to coarse-grained sediment (in scour depressions consisting of material that is coarser than the surrounding seafloor) makes up 0.9 percent (1.2 km²) of the map area: 0.1 percent (0.1 km²) is in Depth Zone 2, and 0.8 percent (1.1 km²) is in Depth Zone 3 (table 1).

Table 1. Coverage of classified seafloor, in square kilometers (sq km) and percent of total area, broken into California Marine Life Protection Act Depth Zones 2 and 3.

	Total	Depth Zone 2 (water depth 0-30 m)	Depth Zone 3 (water depth 30-100 m)
	percent	sq km	percent of total
Fine- to medium-grained smooth sediment	80.6	103.2	91.5
Mixed smooth sediment and rock	8.1	10.3	6.8
Rock and boulder, rugose	10.4	13.3	3.9
Medium- to coarse-grained sediment	0.9	1.2	0.1

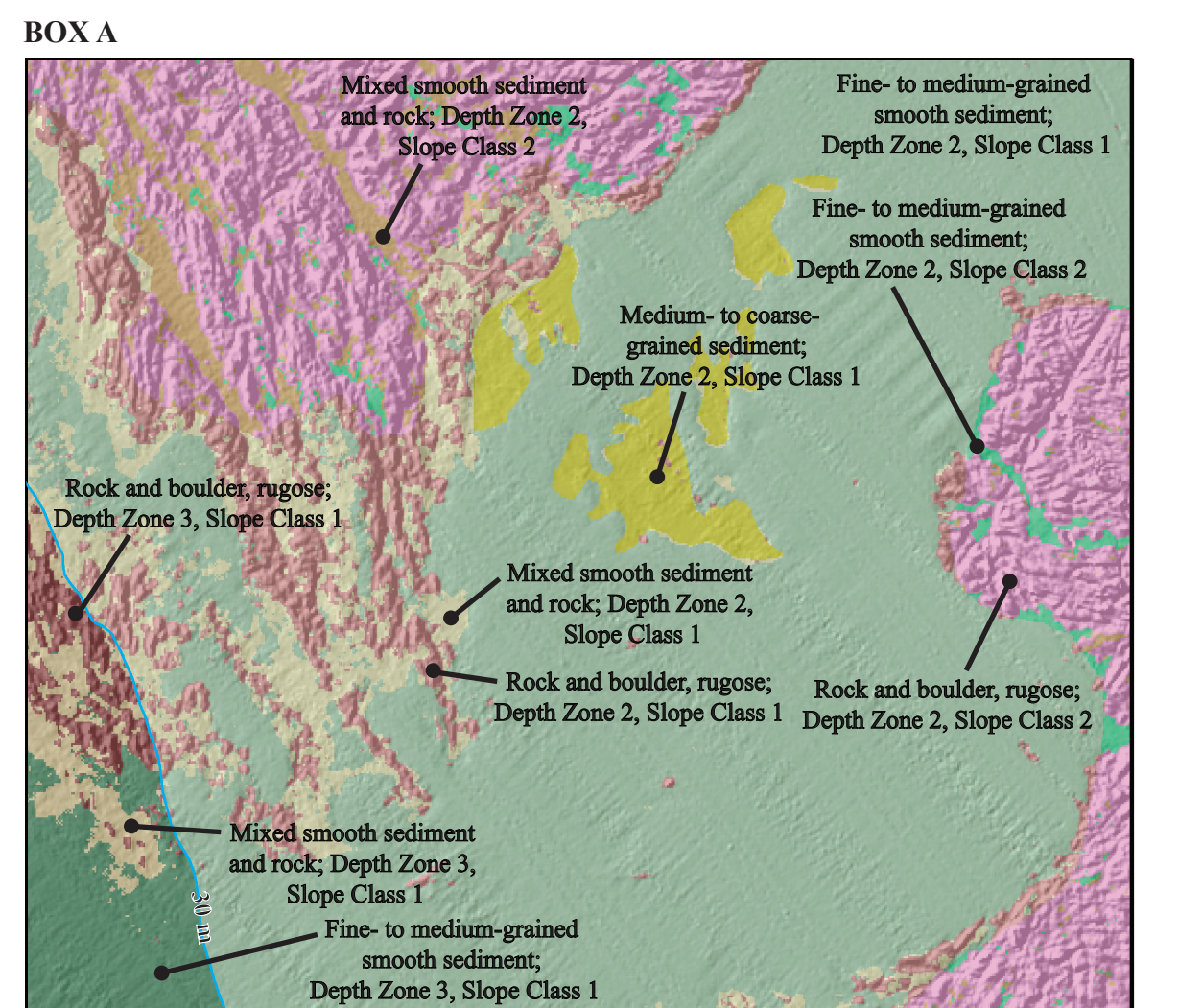


Figure 1. Detailed view of substrate classes mapped offshore of Davenport (see Box A on map, for location): Depth Zone 2 (intertidal to 30 m), Depth Zone 3 (30 to 100 m), Slope Class 1 (0°-5°), and Slope Class 2 (5°-30°). Fine- to medium-grained smooth sediment is shown in shades of green; mixed smooth sediment and rock is shown in shades of tan; rock is shown in shades of pink; and medium- to coarse-grained sediment is shown in shades of yellow. Bathymetric contour (30 m) shown for depth reference.

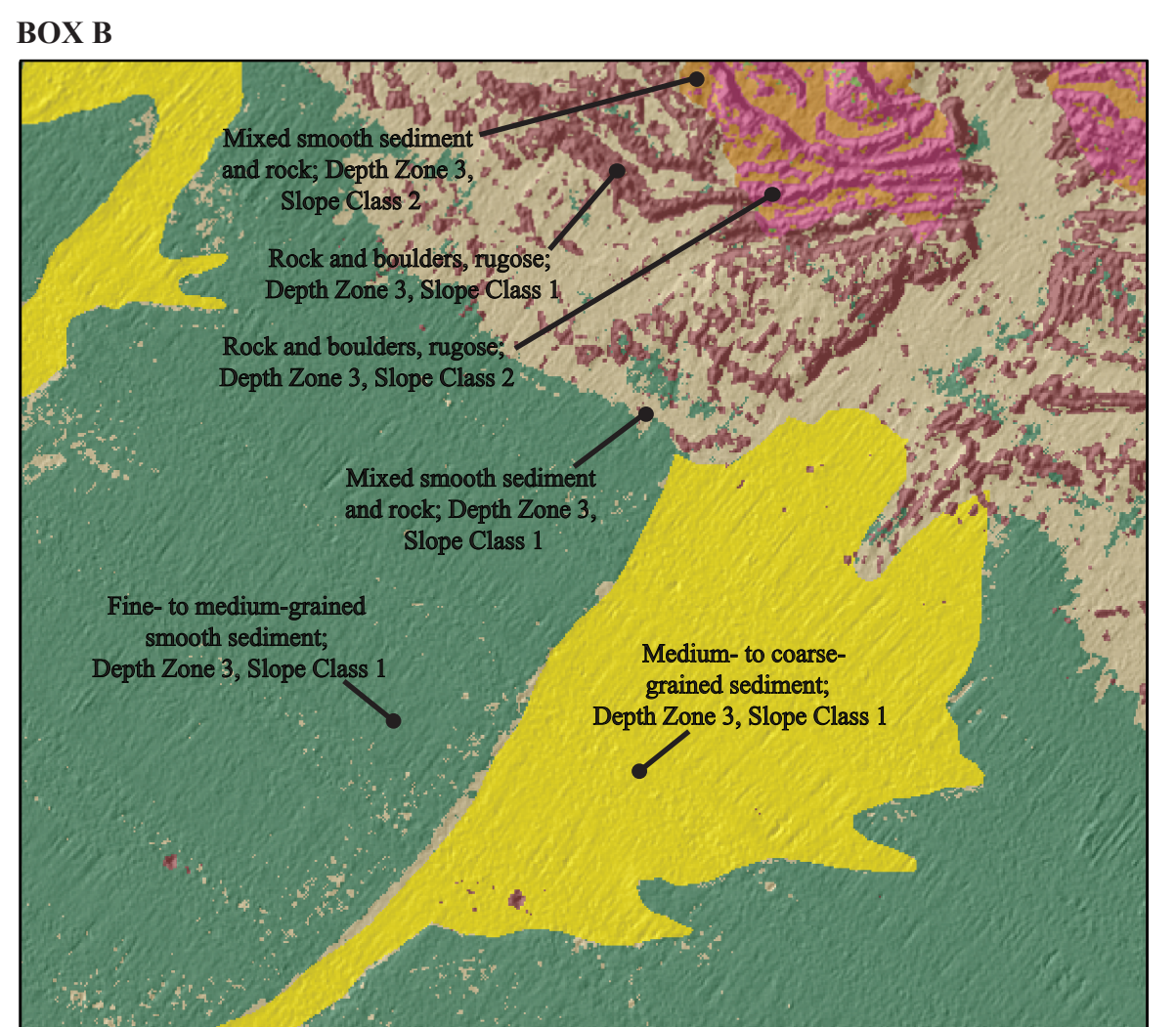
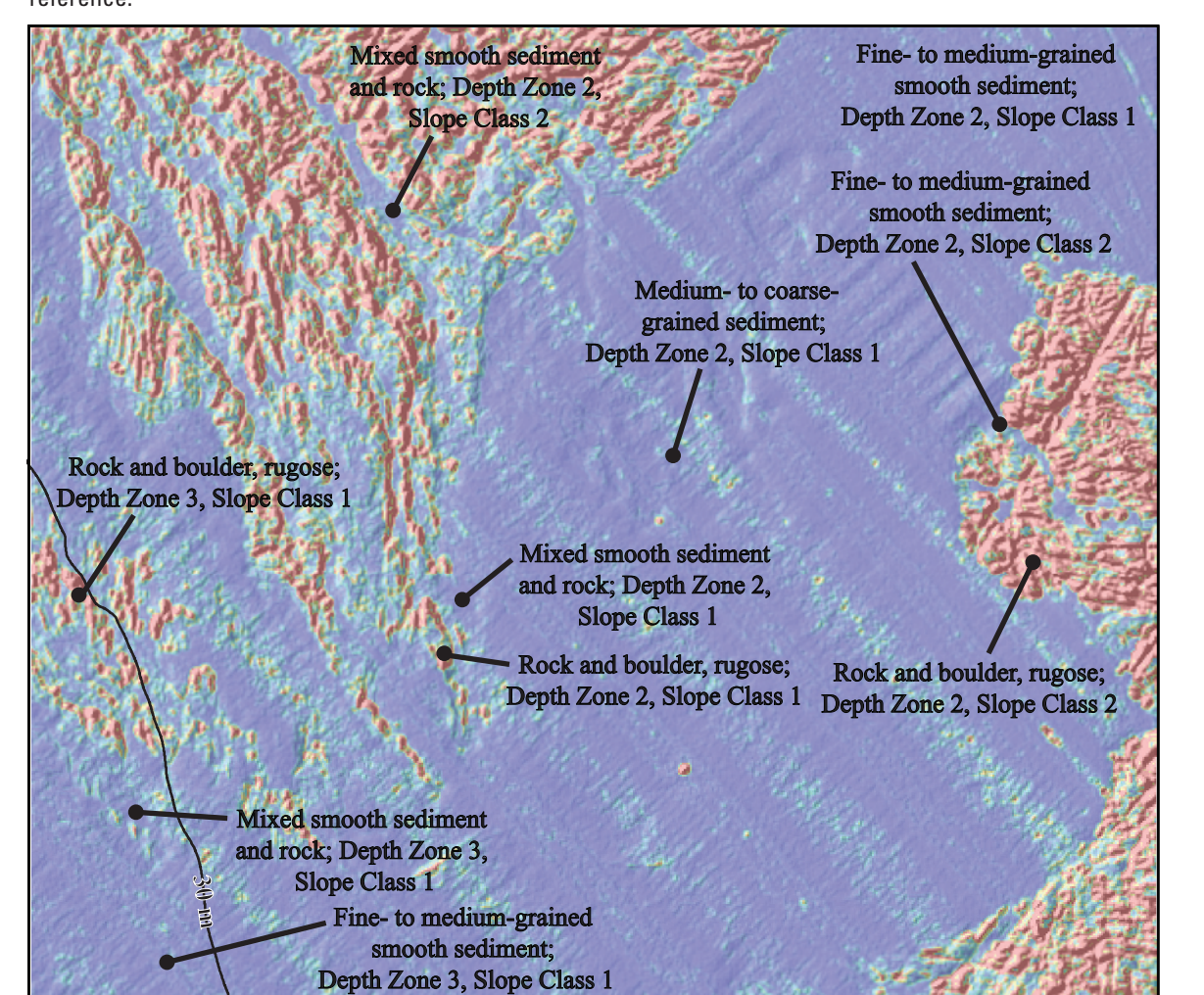
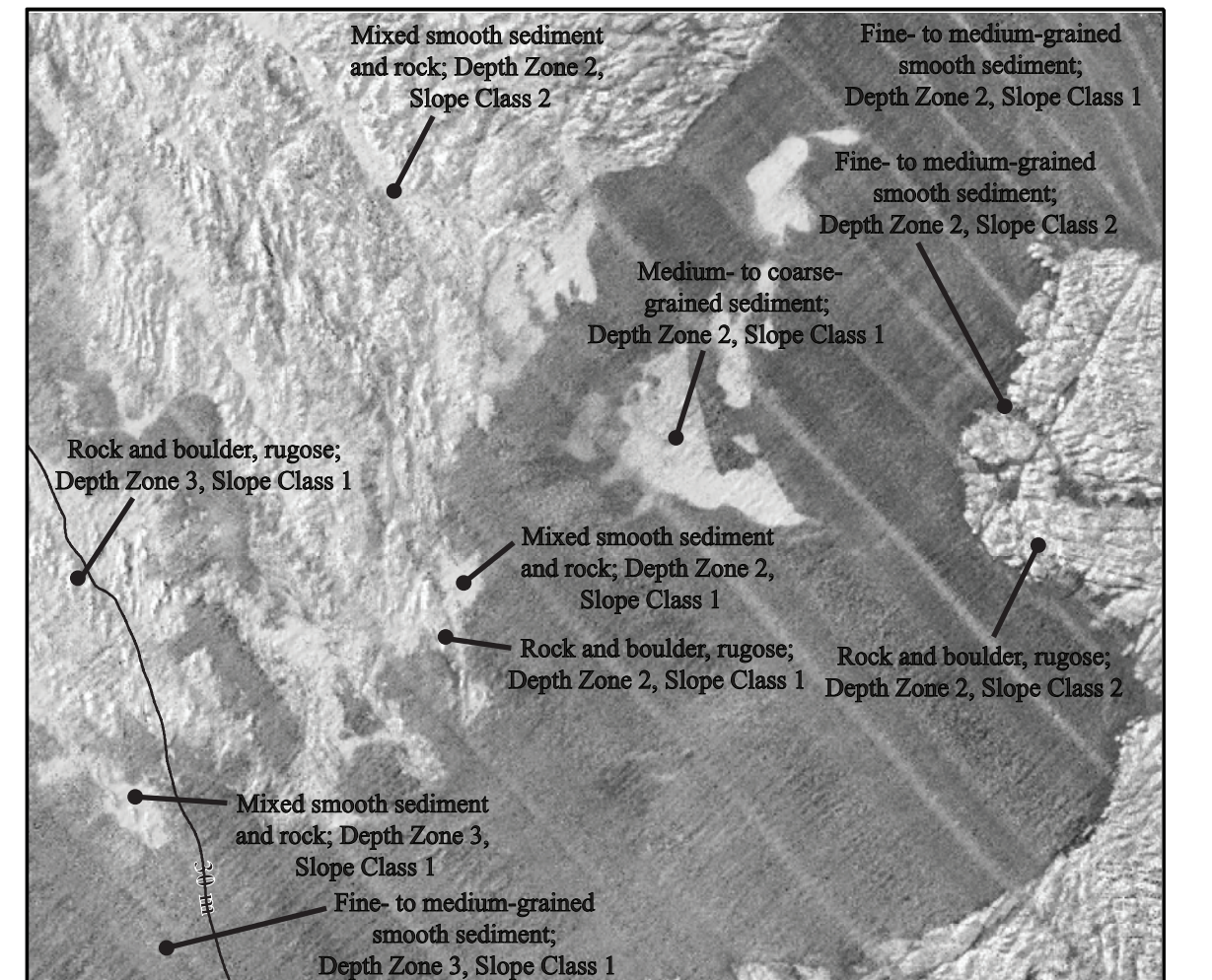
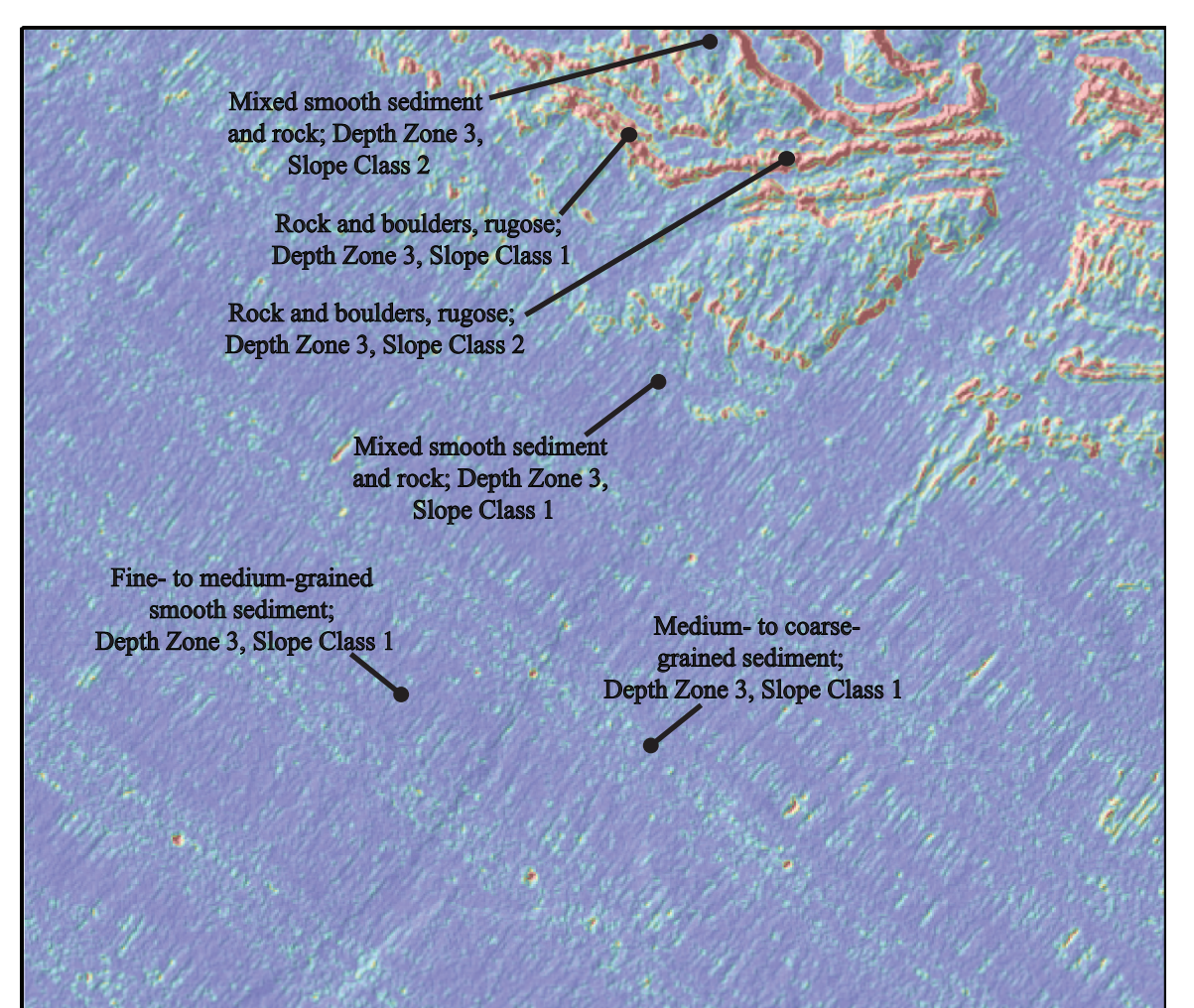
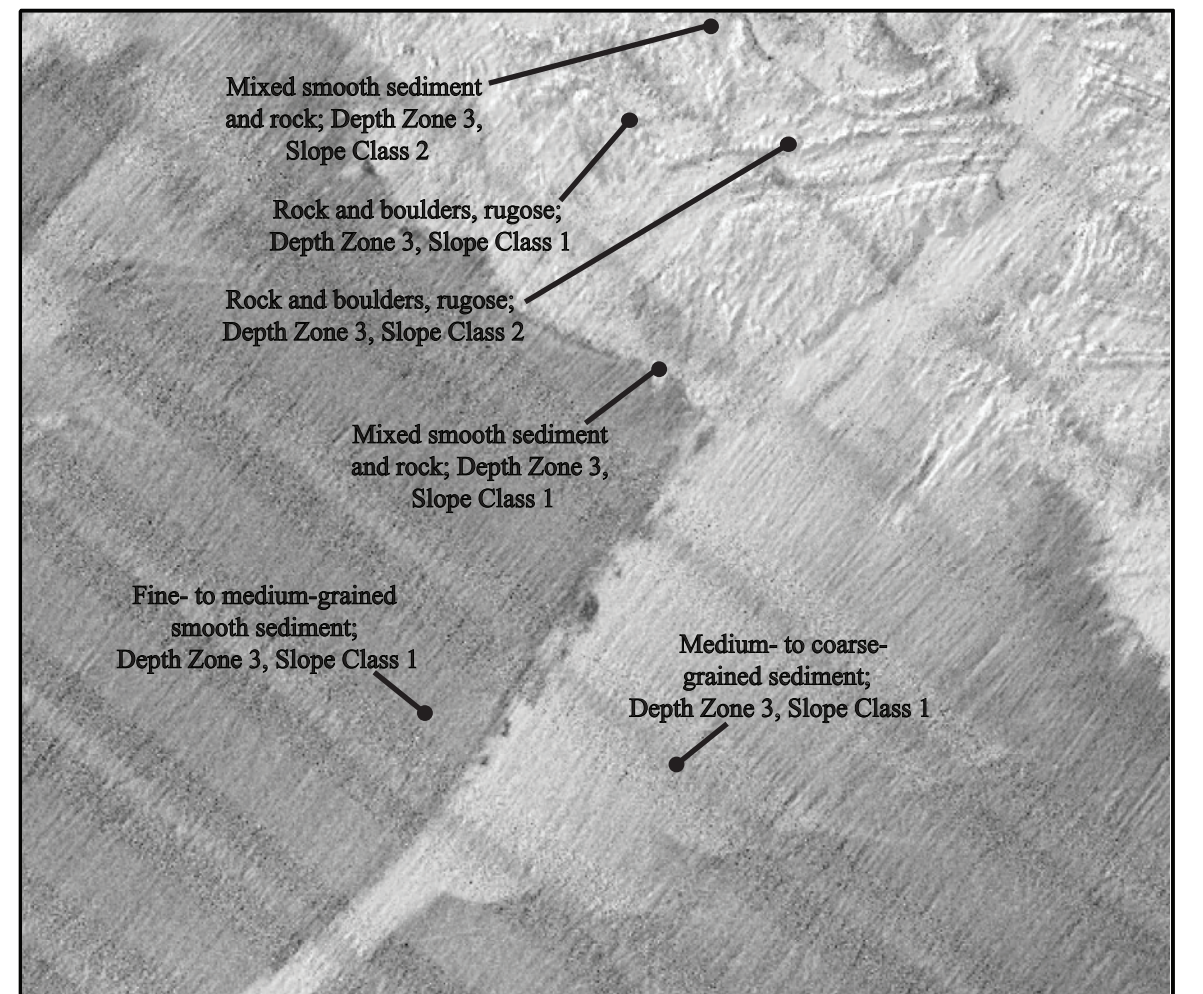


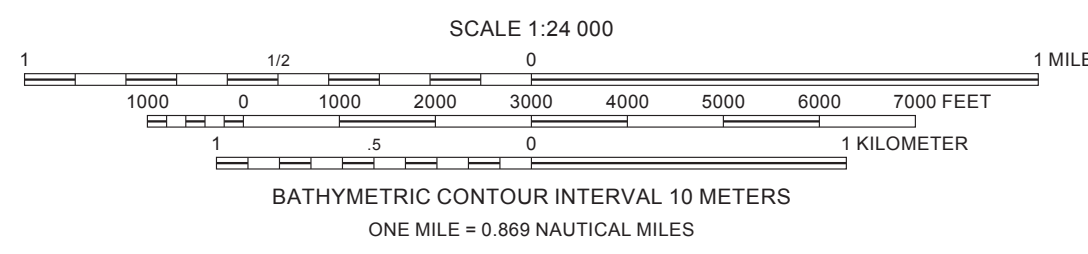
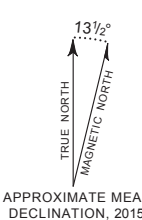
Figure 4. Detailed view of substrate classes mapped offshore of Davenport (see Box B on map, for location): Depth Zone 3 (30 to 100 m), Slope Class 1 (0°-5°), and Slope Class 2 (5°-30°). Fine- to medium-grained smooth sediment is shown in shades of green; mixed smooth sediment and rock is shown in shades of tan; rock is shown in shades of pink; and medium- to coarse-grained sediment is shown in shades of yellow.



Onshore elevation data from California Coastal Conservancy (available from National Oceanic and Atmospheric Administration (NOAA) Coastal Service Center's Digital Coast at <http://www.coast.noaa.gov/digitalcoast/>) and from U.S. Geological Survey's National Elevation Dataset (available at <http://ned.scripps.edu/>). Offshore shaded-relief bathymetry from map on sheet 2, this report. California's State Waters limit from NOAA Office of Coast Survey.

Universal Transverse Mercator projection, Zone 10N

NOT INTENDED FOR NAVIGATIONAL USE



Seafloor character mapped by Mercedes D. Erdey, 2010. Bathymetric contours by Mercedes D. Erdey, 2014.

GIS database and digital cartography by Mercedes D. Erdey

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Seafloor Character, Offshore of Scott Creek Map Area, California

By
Mercedes D. Erdey and Guy R. Cochrane
2015

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