

Onshore elevation data from National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management's Digital Coast (available at [http://www.coast.noast.noaa.gov/digitalcoast/data/elevation/](http://www.coast.noaa.gov/digitalcoast/data/elevation/)) and from U.S. Geological Survey's National Elevation Dataset (available at <http://ned.usgs.gov/>). California's State Waters limit from NOAA Office of Coast Survey.

Universal Transverse Mercator projection, Zone 10N

NOT INTENDED FOR NAVIGATIONAL USE

APPROXIMATE MEAN DEPRESSION 29.5'

SCALE 1:24 000

1 12 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 1 5 10 KILOMETER

BATHYMETRIC CONTOUR INTERVAL 10 METERS

ONE MILE = 0.869 NAUTICAL MILES

MAP LOCATION

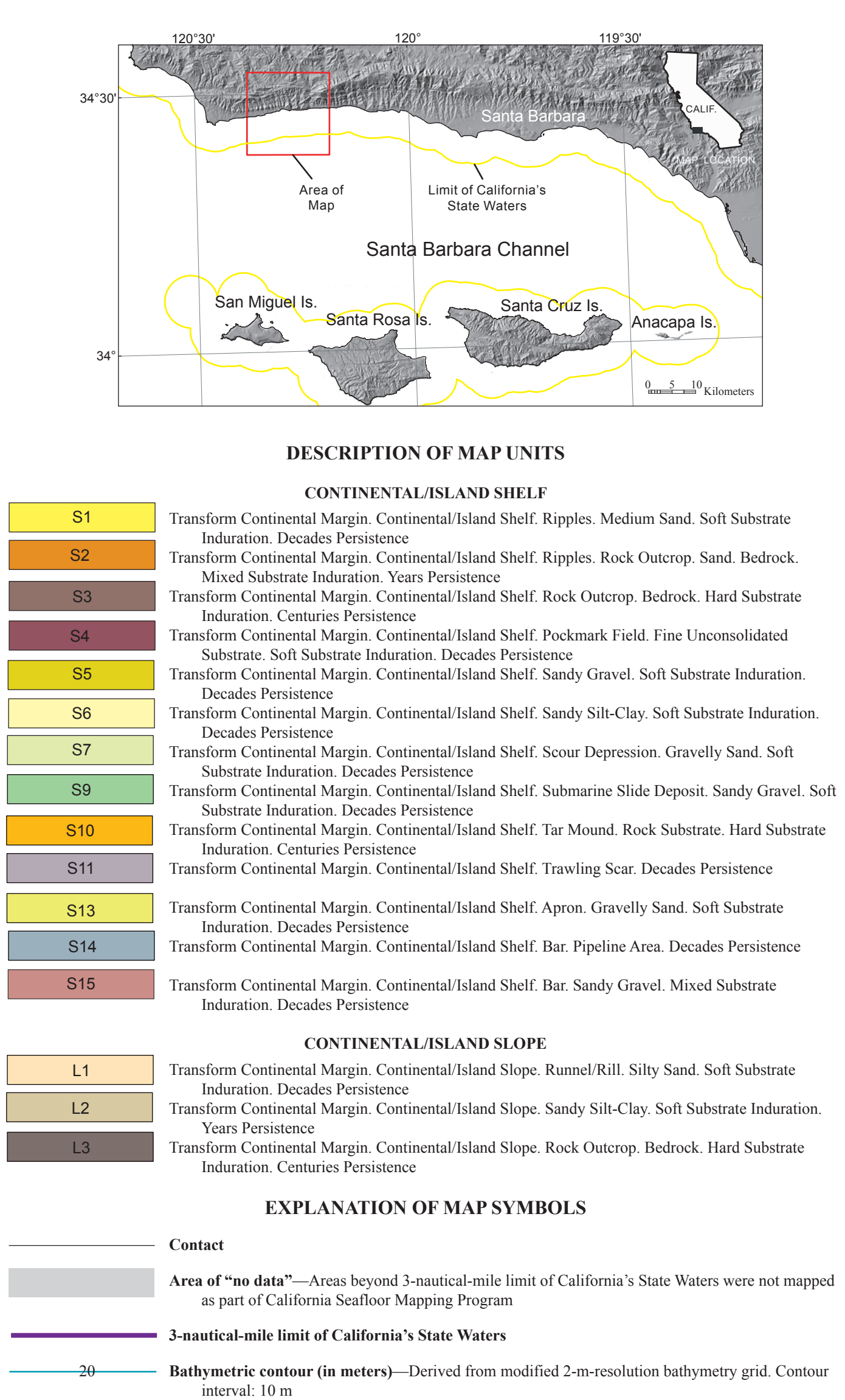
Marine benthic habitats from Coastal and Marine Ecological Classification Standard mapped by Guy R. Cochrane, Stephen R. Hartwell, and Samuel Y. Johnson, 2018. Bathymetric contours by Peter Dartnall, 2016.

GIS database and digital cartography by Guy R. Cochrane and Stephen R. Hartwell.

Manuscript approved for publication February 12, 2018.

Marine Benthic Habitats from the Coastal and Marine Ecological Classification Standard, Offshore of Gaviota Map Area, California

By
Guy R. Cochrane, Stephen R. Hartwell, and Samuel Y. Johnson
2018



DISCUSSION

This map shows physical marine benthic habitats in the Offshore of Gaviota map area. Marine benthic habitats represent a particular type of water quality, substrate, geomorphology, seafloor process, or any other attribute that may provide a habitat for a specific species or an assemblage of organisms. Marine benthic habitats are classified using the Coastal and Marine Ecological Classification Standard (CMECS), developed by representatives from a consortium of federal agencies. CMECS is the Federal standard for marine habitat characterization (available at https://www.fgdc.gov/standards/projects/FGDC-standards-projects/cmecc-folder/CMECS_Version_06-2012_FINAL.pdf). The standard provides an ecologically relevant structure for biologic, geologic, chemical, and physical habitat attributes.

This map illustrates the geomorphology and substrate components of the standard and their distribution in the Offshore of Gaviota map area. Geomorphology components describe the major geomorphic and structural characteristics of the coast and seafloor (that is, the tectonic and physiographic settings and the geological, biogenic, and anthropogenic features). This map was derived from the geologic and geomorphic map of the seafloor (see sheet 9) by translation of the map-unit descriptions into the best-fit values of the CMECS classes. The map also includes a temporal attribute for each unit that indicates time period of persistence, as well as an inductive attribute that allows reclassification of the data-containing shapefile into a simple map of hard-mixed-soft attributes of Essential Fish Habitat assessment (Greene and Bizzarro, 2003). Table 1 shows the total area (in square meters) of each CMECS class mapped.

REFERENCE CITED

Greene, H.G., and Bizzarro, J.J., 2003, Essential fish habitat characterization and mapping of the California continental margin: Final Report to Pacific States Marine Fisheries Commission, CFDA#11-454, 14 p., available at http://marinehabitat.psmfc.org/files/source_docs/EFH_report_with_Appendices.pdf.

Map-unit label	Area, in square meters
S1	27,854,140
S2	10,364,978
S3	12,434,811
S4	1,068,996
S5	291,658
S6	12,574,410
S7	7,111
S9	349,274
S10	146,355
S11	1,116,801
S13	13,840,013
S14	41,005
S15	6,117,475
L1	3,239,731
L2	12,246,730
L3	99,409

Table 1. Total area, in square meters, of each marine benthic habitat class from Coastal and Marine Ecological Classification Standard mapped in Offshore of Gaviota map area.

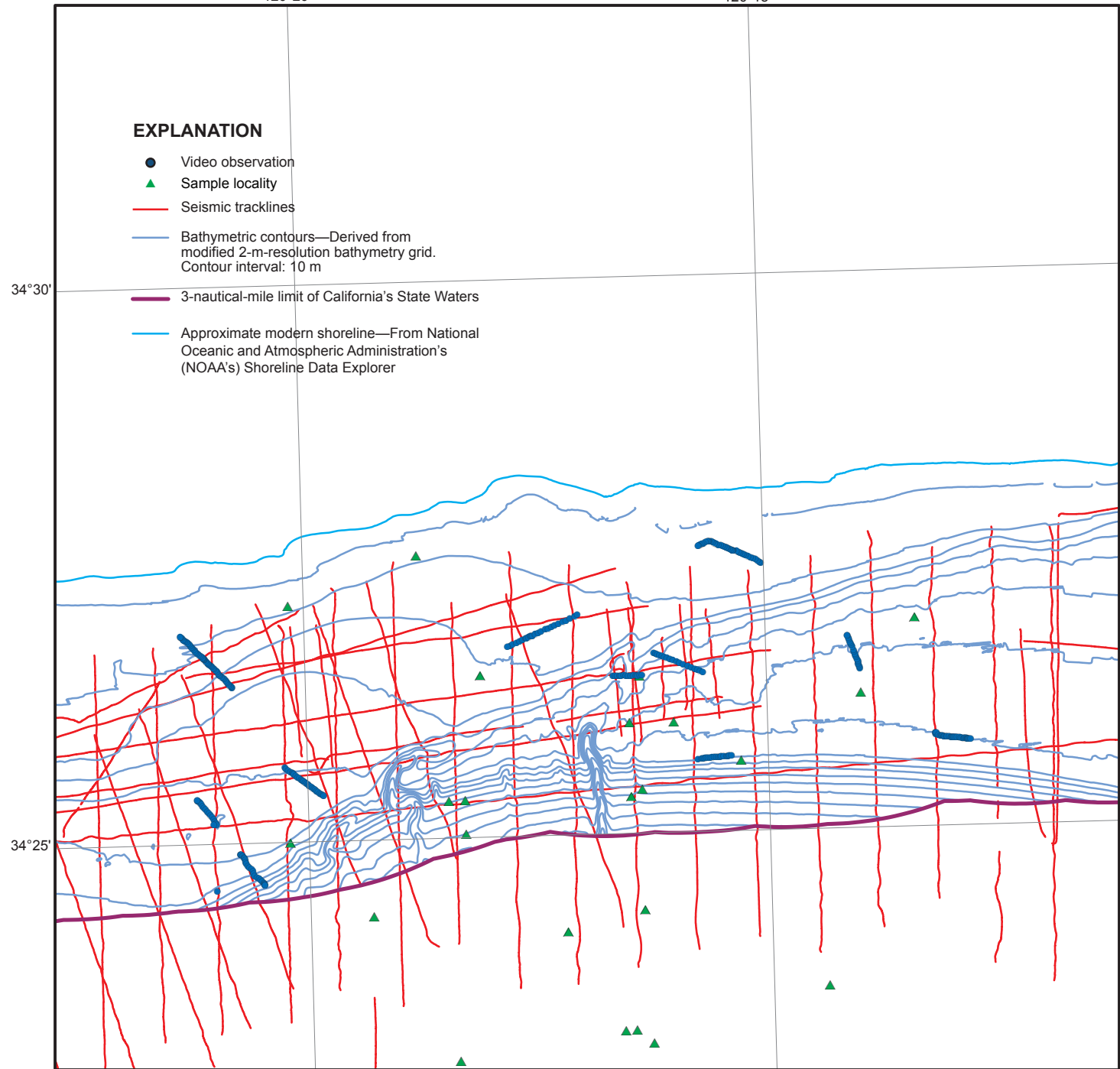


Figure 1. Map showing video-observation locations, sample localities, and seismic tracklines for Offshore of Gaviota map area.



Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government.

This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and proportions may not be true on a plot of this map.

For sale by U.S. Geological Survey, Information Services, Box 25086, Federal Center, Denver, CO 80225, 1-888-ASDC-10355

Digital files available at <https://doi.org/10.26304/20181023>

Suggested Citation: Cochrane, G.R., Hartwell, S.R., and Johnson, S.Y., 2018, Marine benthic habitats from the Coastal and Marine Ecological Classification Standard, Offshore of Gaviota map area, California, sheet 6 of Johnson, S.Y., Cochrane, G.R., Hartwell, S.R., Johnson, S.Y., Johnson, S.Y., and Johnson, S.Y., eds., U.S. Geological Survey Open-File Report 2018-1023, pamphlet 41 p., 9 sheets, scale 1:24,000, <https://doi.org/10.26304/20181023>.