Central and Northern California Coastal Marine Habitats: Oil Residence and Biological Sensitivity Indices

RELATIVE ABUNDANCE OF MAJOR MACROBIOTA*

Taxa ROCKY INTERTIDAL MACROBIOTA	A	B	C	D	E	F	G	H
Acorn barnacles								O
Chlorophyta	O	O	O	O	O	O		O
Porphyra spp.	O	O	O	O	O	O		O
Pelvetiopsis limitata	O-C	O-C	O-C	O-C	O-C	O-C		O
Endocladia muricata	C	C	C	C	C	C		C
Pelvetia fastigiata								
Fucus distichus								O
Gigartina spp.	C	C	C	C	C	C		C
Pollicipes polymerus	O	O	O	O	O	O		C
Mytilus californianus	O	O	O	O	O	O		C
Corallina spp./Gigartina spp.	O-C	O-C	O-C	O-C	O-C	O-C		O-C
Postelsia palmaeformis	O	O	O	O	O	O		C
Halosaccion glandiforme								O
Iridaea spp.	O	O	O	O	O	O		C
Odonthalia spp./Rhodomela larix								O
Coralline algae	O	O	O	O	O	O		C
Phyllospadix spp.	O	O	O	O	O	O		C
Alaria marginata	O	O	O	O	O	O		C
Egregia menziesii	O-C	O-C	O-C	O-C	O-C	O-C		C
Laminaria spp.	O	O	O	O	O	O		C
Lessoniopsis littoralis	O	O	O	O	O	O		C
OTHER MACROBIOTA								
Kelp beds:								
Macrocystis spp.								
Nereocystis luetkeana								
Marine mammals:								
Elephant seal								
Harbor seal	O			O-A	O-C			
Steller sea lion	O-C			O				
California sea lion	O							
Seabird nesting colonies:								
Fork-tailed storm petrel								
Leach's storm petrel								
Ashy storm petrel								
Brandt's cormorant				A				A
Double-crested cormorant								
Pelagic cormorant	C			C-A				A
Black oystercatcher				O				
Western gull	O			O				O
Common murre								
Pigeon guillemot	O			O-C				C
Cassin's auklet								
Rhinoceros auklet								
Tufted puffin								
Threatened/Endangered Species:								
Aleutian Canada goose								
Southern sea otter								

*Relative abundance for summer conditions: O = occasional, C = common, A = abundant

PHYSICAL SHORE-ZONE CHARACTERISTICS

UNIT IDENTIFIERS	A	B	C	D	E	F	G	H
ALONGSHORE LENGTH (km)	8.2	1.7	0.4	3.8	0.4	2.3	0.2	0.5
ACROSS-SHORE WIDTH (m)	5-15	30-40	30	0-15	20	5-30	50	0-10
WAVE EXPOSURE	10	10	10	10	10	10	1-10	10
ACROSS-SHORE COMPONENTS (morphology, texture) Primary / Secondary	Ca,Rm Bi,Ccgb Pl,Cb / Rm Ore,Rm / Ca,Rm Bf,Cbc Ore,Rm	Ca,Rm Bf,Cgs Ore,Rm	Ca,Rm Bi,Ccg Pf,Rm Ore,Rm / Ca,Rm Ore,Rm	Ca,Rm Bi,Ccgr Bi,Cbc Ore,Rm / Ca,Rm Ore,Rm	Ca,Rm Ph,Cb / Rm Ores,Rm	Ca, Rm Bf,Ccgs Ore,Rm / Ca,Rm Bi,Cbc	Rs,Cgs Ie,Cgs Bb,Cgs Bf,Cgs	Cc,Rm Ore,Rm / Cc,Rm Bi,Cbr Ore,Rm
MICRO RELIEF	R	S	R	R	R	R	S	R
MACRO RELIEF	S	S	R	R	R	S	S	R
SUMMARY CHARACTERISTICS	Rbmv0	bg	RPbg	Rb'mv0	Rv0	bgv0	bg	Rb'mv0
OIL RESIDENCE INDEX	3	3	3	3	3	3	1-2	3
GROUND TRUTH	0	0	0	0	0	0	0	0

ABBREVIATED PHYSICAL SHORE-ZONE CODING EXPLANATION

This is an abbreviated legend for the physical shore-zone coding sheets; consult the main text for a complete discussion of codes and rationale. Only the across-shore descriptors for morphology and texture are discussed.

ACROSS-SHORE COMPONENTS - dominant morphologic and textural character of each across-shore component, described in a landward to seaward sequence. Each component consists of a geomorphic form descriptor and a substrate descriptor:
FORM → Bb, Csg ← TEXTURE

The primary geomorphic forms are initially described by a series of 12 codes:

A	Anthropogenic	E	Coastal Bay, Lagoon, Estuary	P	Platform
B	Beach	I	Inlet	R	River
C	Cliff	M	Marsh	S	Bar/Trough
D	Dune	O	Offshore Rocks	T	Delta

Each of these groups is then further modified by codes as indicated below.

Anthropogenic (A)
- e causeway; f float; j jetty; g groin; m marina; r boat ramp; t trench; s seawall; w wharf

Beach (B)
- b berm; c washover channel; f beach face; i inclined slope; m multiple intertidal bars; r single intertidal bar; s storm ridge; t low-tide terrace; w washover

Cliff (C)
- a active or erosional; p passive; c caves present

Dune (D)
- b blowout; d stabilized; f foredune; r random form; s ridge and swale; l longitudinal

Coastal Bay, Lagoon, Estuary (E)
- b enclosed bay; e estuary

Inlet (I)
- e ephemeral; s stable; a opening fixed by offshore structures; f flood-tidal delta; l ebb-tidal delta

Marsh (M)
- c tidal creek

Offshore Rocks (O)
- e intertidal reef; r rock outcrop (>2 m above M.S.L. and <10 m in width or length); s sea stack

Platform (P)
- h high-tide platform; l low-tide platform; f horizontal; r ramp; t terraced; i irregular

River (R)
- b braided; m multiple; s single channel

Bar/Trough (S) subtidal
- r with rip channels

Delta (T)
- c channel; f fan; l levee; m multiple channels; s single channel; p delta plain; v crevasse

Substrate type or sediment texture are described in detail by a series of codes. The sediments or materials of the shore are initially coded into one of four groups:

A	anthropogenic materials	C	clastic sediments
B	biogenic sediments	R	bedrock

Each of these groups is then further modified by texture or composition as indicated below.

Anthropogenic materials (A)
- a metal; d debris, rubble; e concrete (individually formed); n concrete (solid); t logs; u wood (structural; e.g., pilings or boards); w bark or wood debris

Biogenic sediments (B)
- l trees or wood particles; s shell hash (with a texture as described below); o organic litter

Clastic sediments (C)
- b boulder; c cobble; p pebble; s sand; ≠ silt; ≠ clay; m mud; g gravel; r rubble

Bedrock (R)
- i igneous; m metamorphic; s sedimentary

Where more than one texture is present in an across-shore component, several substrates or textures may be indicated. Where one texture physically overlies another, it is indicated by a slash (e.g. Cs/Rs, and over rock). Where several mutually exclusive textures occur within a component, such as rock outcrops within a sand beach, a colon is used to indicate that association (e.g., Cs:Ri).

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