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

RELATIVE ABUNDANCE OF MAJOR MACROBIOTA*

ROCKY INTERTIDAL MACROBIOTA	A	B	C	D	E	F	G	H
Acorn barnacles	O			O	O			O
Chlorophyta	C			C	C			O
Porphyra spp.				C				
Pelvetiopsis limitata								
Endocladia muricata	C			O	O			C
Pelvetia fastigiata	C			C	C			C
Fucus distichus				O-C				
Gigartina spp.	C			C	C			C
Pollicipes polymerus	C			C	C			O-C
Mytilus californianus	C			C	C			C
Corallina spp./Gigartina spp.	C			C	C			C
Postelsia palmaeformis	C			C	C			C
Halosaccion glandiforme				O-C				
Iridaea spp.	C			C	C			C
Odonthalia spp./Rhodomela larix				O				
Coralline algae	C			C	C			C
Phyllospadix spp.	C			O	C			C
Alaria marginata	C			C	C			C
Egregia menziesii	C			C	C			C
Laminaria spp.	C			C	C			C
Lessoniopsis littoralis								
OTHER MACROBIOTA								
Kelp beds:								
Macrocystis spp.	C	C	C	C	C	C		C
Nereocystis luetkeana	O	O	O	O	O	O		O
Marine mammals:								
Elephant seal								
Harbor seal		O-C			O-C			
Steller sea lion								
California sea lion								
Seabird nesting colonies:								
Fork-tailed storm petrel								
Leach's storm petrel								
Ashy storm petrel								
Brandt's cormorant								
Double-crested cormorant								
Pelagic cormorant	C			C	C			C
Black oystercatcher	O			O	O			O
Western gull	O			O	O			O
Common murre								
Pigeon guillemot	A			A	A			A
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)	3.9	1.0	0.2	0.2	1.6	0.4	0.3	1.2
ACROSS-SHORE WIDTH (m)	10-60	40	100	10-60	0-30	40	100	0-30
WAVE EXPOSURE	10	1-10	10	10	10	10	10	10
ACROSS-SHORE COMPONENTS (morphology, texture) Primary / Secondary	Ca,Rs Bi,Cs Pl,Rs / Ca,Rs Pl,Rs Ore,Rs	Ca,Rs Bw,Cs Bb,Cs Bf,Cs	Cp,Rs Bb,Cs Bf,Cs	Ca,Rs Bi,Cs Pl,Rs / Ca,Rs Pl,Rs Ore,Rs	Cc,Rs Ores,Rs / Ca,Rs Bi,Cs / Cc,Rs Ph,Rs Ore,Rs	Ca,Rs Bb,Cs Bf,Cs / As,An	Cp,Rs Bb,Cs Bf,Cs	Cc,Rs Ores,Rs / Ca,Rs Bi,Cs / Cc,Rs Ph,Rs Ore,Rs
MICRO RELIEF	R	S	S	R	R	S	S	R
MACRO RELIEF	R	S	S	R	R	S	S	R
SUMMARY CHARACTERISTICS	RPb's	bs	bs	RP	Rb's	bs	bs	Rb's
OIL RESIDENCE INDEX	3	1-2	2	3	3	2	2	3
GROUND TRUTH	0	0	3	3	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
- B Beach
- C Cliff
- D Dune
- E Coastal Bay, Lagoon, Estuary
- I Inlet
- M Marsh
- O Offshore Rocks
- P Platform
- R River
- S Bar/Trough
- 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
- B biogenic sediments
- C clastic 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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