

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

RELATIVE ABUNDANCE OF MAJOR MACROBIOTA*

Taxa	A	B	C	D	E	F	G
ROCKY INTERTIDAL MACROBIOTA							
Acorn barnacles		0		0	0		0
Chlorophyta		C		0	0		0-C
Porphyra spp.							C
<i>Pelvetiopsis limitata</i>		0					
<i>Endocladia muricata</i>		C		C	C		C
<i>Pelvetia fastigiata</i>		C					
<i>Fucus distichus</i>							0
<i>Gigartina</i> spp.		C		C	C		C
<i>Pollicipes polymerus</i>		0					C
<i>Mytilus californianus</i>		0					C
<i>Corallina</i> spp./ <i>Gigartina</i> spp.							
<i>Postelsia palmaeformis</i>		C					C
<i>Halosaccion glandiforme</i>							
<i>Iridaea</i> spp.		C					C
<i>Odonthalia</i> spp./ <i>Rhodomela larix</i>							
Coralline algae		C-A					C
<i>Phyllospadix</i> spp.		C					C
<i>Alaria marginata</i>		C					C
<i>Egregia menziesii</i>		C					C
<i>Laminaria</i> spp.		C					C
<i>Lessoniopsis littoralis</i>		0					C
OTHER MACROBIOTA							
Kelp beds:							
<i>Macrocystis</i> spp.							
<i>Nereocystis luetkeana</i>							
Marine mammals:							
Elephant seal							
Harbor seal							0-C
Steller sea lion					0		
California sea lion							
Seabird nesting colonies:							
Fork-tailed storm petrel							
Leach's storm petrel							
Ashy storm petrel							
Brandt's cormorant		C					
Double-crested cormorant							
Pelagic cormorant		A					
Black oystercatcher		0					
Western gull							
Common murre							
Pigeon guillemot		A					
Cassin's auklet							
Rhinoceros auklet							
Tufted puffin							
Threatened/Endangered Species:							
Aleutian Canada goose							
Southern sea otter							

*Relative abundance for summer conditions: 0 = occasional, C = common, A = abundant

PHYSICAL SHORE-ZONE CHARACTERISTICS

UNIT IDENTIFIERS	A	B	C	D	E	F	G
ALONGSHORE LENGTH (km)	0.5	1.4	9.1	0.3	0.2	0.4	2.0
ACROSS-SHORE WIDTH (m)	10-20	-	30-60	5-20	-	-	50
WAVE EXPOSURE	10	10	10	10	10	1-10	10
ACROSS-SHORE COMPONENTS (morphology, texture)	Ca, Rs Bf, Cs: Rs	Cc, Rs Ores, Rs	Ca, Rs Bb, Csp Bf, Cs	Ca, Rs Ph, Rs	Ca, Rs	Rs, Csg Ee, 0 Ie, Csg Bf, Cs	Ca, Rs Pf, Cb Rs Ore, Rs
Primary	Cp, Cg Bs, Csp		Dl, Csp	Bi, Cs: Rs			Ca, Rs Bi, Cs: Rs
Secondary	Bb, Cs Bf, Cs		Bf, Cs				Pf, Cb Rs
MICRO RELIEF	S	R	S	R	R	-	S
MACRO RELIEF	S	R	S	R	R	-	S
SUMMARY CHARACTERISTICS	bs0	R	bs	RPb's	R	bsIe	RPb'sv
OIL RESIDENCE INDEX	2-3	3	2-3	3	3	1-2	3
GROUND TRUTH	0	0	2,3,4	0	0	0	3

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 j jetty m marina t trench
f float g groin r boat ramp s seawall w wharf

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

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

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

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

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

Marsh (M) c tidal creek

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

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

River (R)
b braided m multiple s single channel

Bar/Trough (S) subtidal r with rip channels

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

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 n concrete (solid) w bark or wood debris
d debris, rubble l logs u wood (structural; e.g., plings or boards)
e concrete (individually formed)

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

Clastic sediments (C)
b boulder s sand m mud
c cobble f silt g gravel
p pebble f clay 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., Ca/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., Ca:Rl).

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