

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	H	I	J	K	L	M
ROCKY INTERTIDAL MACROBIOTA													
Acorn barnacles	0	0	0	0	0	0		0	0	0	0		0
Chlorophyta	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	0-C		0-C
Porphyra spp.	0	0	0	0	0	0		0-C	0-C	0-C	0		0
Pelvetiopsis limitata	C-A	C-A	C-A	C-A	C-A	C-A		C-A	C-A	C-A	C		C
Endocladia muricata	C	C	C	C	C	C		C	C	C			C
Pelvetia fastigiata										C			
Fucus distichus	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	0-C		0-C
Gigartina spp.	C	C	C	C	C	C		C	C	C	C		C
Pollicipes polymerus	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	C		C
Mytilus californianus	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	C		C
Corallina spp./Gigartina spp.	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	0-C		0-C
Postelsia palmaeformis	C	C	C	C	C	C		0	0	0	0		0-C
Halosaccion glandiforme	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	0		0-C
Iridaea spp.	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	C		C
Odonthalia spp./Rhodomela larix	0	0	0	0	0	0		0	0	0	0		0-C
Coralline algae	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	C		C
Phyllospadix spp.	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	C		C
Alaria marginata	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C		0-C		C
Egria menziesii	C	C	C	C	C	C		C	C	C	C		C
Laminaria spp.	0-C	0-C	0-C	0-C	0-C	0-C		0-C	0-C	0-C	0-C		C
Lessoniopsis littoralis	0	0	0	0	0	0		0	0	0	0-C		C
OTHER MACROBIOTA													
Kelp beds:													
Macrocystis spp.													0
Nereocystis luetkeana	C	C	C	C	C	C		C	C	C	C	0	0
Marine mammals:													
Elephant seal													
Harbor seal				0-C	0-C					0			0
Steller sea lion				0	0								
California sea lion													
Seabird nesting colonies:													
Fork-tailed storm petrel													
Leach's storm petrel													
Ashy storm petrel													
Brandt's cormorant				A									
Double-crested cormorant													
Pelagic cormorant	0-A	0-A	0-A	C-A		C		C	C				A
Black oystercatcher	0	0	0										0
Western gull	0	0	0	C		0		0	0				0
Common murre				A									
Pigeon guillemot	0	0	0	0				0	0				0
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	H	I	J	K	L	M
ALONGSHORE LENGTH (km)	1.2	0.4	0.5	0.4	0.7	3.0	0.3	1.8	1.9	0.6	1.4	0.5	2.9
ACROSS-SHORE WIDTH (m)	10-20	<10	20	<5	0-20	20-30	-	20-30	30	30-50	30	30	0-30
WAVE EXPOSURE	10	10	1-10	10	10	10	1-10	10	10	10	10	1-10	10
ACROSS-SHORE COMPONENTS (morphology, texture)	Ca,Rm Ore,Rm	Cc,Rm Ores,Rm	Cp,Rm Bb,Cgs BF,Cs Or,Rm	Cc,Rm Ores,Rm	Cc,Rm Ore,Rm	Ca,Rm Bi,Ccp: Rm	Rs,Csc Ie,Csc BF,Csl	Ca,Rs Bi,Ccr Bi,Cgs Pi,Cbc Rs	Ca,Rs Bi,Cbre Bi,Ccg: Rs	Ca,Rs Bi,Ccbg Pi,Cb Rs	Ca,Rs Bb,Cgs: Rs	Ca,Rs Bb,Csg BF,Cs	Cc,Rs Ore,Rs
Primary	Ca,Rm Bi,Ccr Bi,Cbc Ore,Rm		Rs,Cs Ie,Cs BF,Cs		Ca,Rm Bi,Cg Ore,Rm	Bi,Ccb: Rm	Ores,Rm	Ores,Rs	Ore,Rs			Rs,Csg BF,Cs	Ca,Rs Bi,Cgc Ore,Rs
Secondary													
MICRO RELIEF	R	R	S	R	R	R	S	R	R	R	R	S	S-R
MACRO RELIEF	R	R	S	R	R	S	S	R	S	R	S	S	R
SUMMARY CHARACTERISTICS	Rb'mv0	RO	bmIe	RO	Rb'm0	RbmV0	Oie	RpbmV0	RbmV0	Rpbm0	Rb'mv0	bsIe	RbmV0
OIL RESIDENCE INDEX	3	3	1-2	3	3	3	0	0	3	3	0	0	0
GROUND TRUTH	0	0	0	0	0	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, Ccg + 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 m 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 caven 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 r 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 deltas plain
f fan s single channel v crevasse
l 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 t logs
e concrete (individually formed) u wood (structural; e.g., pilings or boards)

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

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

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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