

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
ROCKY INTERTIDAL MACROBIOTA										
Acorn barnacles	0	0	0	0	0	0	0	0	0	0
Chlorophyta	0	0	0	0	0	0	0	0	0	0
Porphyra spp.	0	0	0	0	0	0	0	0	0	0
<i>Pelvetiopsis limitata</i>	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C
<i>Endocladia muricata</i>	C	C	C	C	C	C	C	C	C	C
<i>Pelvetia fastigiata</i>										
<i>Fucus distichus</i>	0	0	0	0	0	0	0	C	0	0
<i>Gigartina</i> spp.	C	C	C	C	C	C	C	C	C	C
<i>Pollicipes polymerus</i>	0-C		0-C				0-C	C	C	C
<i>Mytilus californianus</i>	0-C		0-C				0-C	C	C	C
<i>Corallina</i> spp./ <i>Gigartina</i> spp.	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C
<i>Postelsia palmaeformis</i>										
<i>Halosaccion glandiforme</i>										
<i>Iridaea</i> spp.	C	C	C	C	C	C	C	C	C	C
<i>Odonthalia</i> spp./ <i>Rhodomela larix</i>	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C
Coralline algae	C	C	C	C	C	C	C	C	C	C
<i>Phyllospadix</i> spp.	C	C	C	C	C	C	C	C	C	C
<i>Alaria marginata</i>	C	C	C	C	C	C	C	C	C	C
<i>Egregia menziesii</i>	C	C	C	C	C	C	C	C	C	C
<i>Laminaria</i> spp.	C	C	C	C	C	C	C	C	C	C
<i>Lessoniopsis littoralis</i>										
OTHER MACROBIOTA										
Kelp beds:										
<i>Macrocystis</i> spp.										0
<i>Nereocystis luetkeana</i>	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	0-C	C
Marine mammals:										
Elephant seal										
Harbor seal								0-A		
Steller sea lion										
California sea lion										
Seabird nesting colonies:										
Fork-tailed storm petrel										
Leach's storm petrel										
Ashy storm petrel										
Brandt's cormorant	A		0-A				A		A	
Double-crested cormorant										
Pelagic cormorant	A		0-C				0		0	
Black oystercatcher	0						0		0	
Western gull	0		C				0-A		0-A	
Common murre	A						A		A	
Pigeon guillemot	C		0				C		C	
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
ALONGSHORE LENGTH (km)	0.3	1.9	0.2	0.2	4.1	0.4	0.5	0.7	0.2	2.8
ACROSS-SHORE WIDTH (m)	50	10-50	<20	30	50	30	15	25	100	20-100
WAVE EXPOSURE	10	10	10	10	10	10	10	10	10	10
ACROSS-SHORE COMPONENTS (morphology, texture)	Cc,Rs Bf,Cg: Rs Pl,Rs Or,Rs	Cc,Rs Bf,Cg: Rs	Cc,Rs Or,Rs	Ca,Rs Bf,Cc Bf,Cs Pl,Rs Or,Rs	Ca,Rs Bf,Csg	Ca,Rs Bf,Cs Bt,Cs: Rs Or,Rs	Ca,Rs Bf,Cb Os,Rs	Ca,Rs Bf,Cgb Pl,Cb Rs	Ca,Rs Pl,Rs Ors,Rs	Ca,Rs Bf,Cgcb Pl,Cb Rs Oe,Rs
Primary										
Secondary										
MICRO RELIEF	R	R	R	R	S	R	R	R	R	R
MACRO RELIEF	R	S	R	S	S	S	S	S	R	R
SUMMARY CHARACTERISTICS	RPbgO	Rbg	RvO	RPbmO	bg	RbmO	Rv	RPbmO	RPO	RPbs
OIL RESIDENCE INDEX	3	3	3	3	3	3	3	3	3	3
GROUND TRUTH	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 → Bf, 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
g groin
j jetty
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
f 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., Cc/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., Cc:R).

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