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
Acorn barnacles			
Chlorophyta			
Porphyra spp.			
Pelvetiopsis limitata	O	O	O
Endocladia muricata	O	O	O
Pelvetia fastigiata			
Fucus distichus			
Gigartina spp.	O	O	O
Pollicipes polymerus	O	O	O
Mytilus californianus	O	O	O
Corallina spp./Gigartina spp.	O-C	O-C	O-C
Postelsia palmaeformis	O	O	O
Halosaccion glandiforme	O	O	O
Iridaea spp.	O	O	O
Odonthalia spp./Rhodomela larix			
Coralline algae	O	O	O
Phyllospadix spp.	O	O	O
Alaria marginata	O	O	O
Egregia menziesii	O	O	O
Laminaria spp.	O	O	O
Lessoniopsis littoralis	O	O	O
OTHER MACROBIOTA			
Kelp beds:			
Macrocystis spp.			
Nereocystis luetkeana			
Marine mammals:			
Elephant seal			
Harbor seal		O	
Steller sea lion		O-C	
California sea lion		O-C	
Seabird nesting colonies:			
Fork-tailed storm petrel			
Leach's storm petrel			
Ashy storm petrel			
Brandt's cormorant			
Double-crested cormorant			
Pelagic cormorant			
Black oystercatcher			
Western gull			
Common murre			
Pigeon guillemot			
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
ALONGSHORE LENGTH (km)	1.7	8.0	2.3
ACROSS-SHORE WIDTH (m)	50-75	30	30-50
WAVE EXPOSURE	10	10	10
ACROSS-SHORE COMPONENTS (morphology, texture) Primary / Secondary	Cp,Cg / Rs Bs,At / Cg Bb,Cgb Bf,Cgb Pf,Cb / Rs Ore,Rs	Ca,Cg / Rs Bb,Cgc Bf,Cg Pl,Cb / Rs Ore,Rs --- Rm,Cg	Cp,Cg / Rs Bs,At / Cg Bb,Cs Bf,Cs Pl,Cb / Rs Ore,Rs --- Rm,Cg
MICRO RELIEF	R	R	S
MACRO RELIEF	S	S	S
SUMMARY CHARACTERISTICS	RPbgvO	bgvO	bgvO
OIL RESIDENCE INDEX	2	2	2
GROUND TRUTH	O	O	O

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
f	float	g	groin	r	boat ramp
				t	trench
				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	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	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	delta 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)

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	≠	silt	g	gravel
p	pebble	≠	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. 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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