

# MARINE Core Species, Higher Taxa, and Substrates

(Target species are shown in bold.)

	Photoplots	Transects	Size & Counts	Field Log Recon	Motile Inverts
GREEN ALGAE					
<i>Cladophora columbiana</i>	X			X	
<i>Ulva/Enteromorpha</i>	X			X	
Other Green Algae (any greens not listed above)*	X	X			
BROWN ALGAE					
<b><i>Egregia menziesii</i> (Boa Kelp)</b>	X	X		X	
<i>Eisenia arborea</i>	X	X		X	
<i>Endarachne/Petalonia</i>	X			X	
<b><i>Fucus gardneri</i> (= <i>F. distichus</i>)(Northern Rockweed)</b>	X			X	
<i>Haldrys dioica/Cystoseira</i> spp	X	X		X	
<b><i>Hedophyllum sessile</i> (Sea Cabbage)</b>	X	X		X	
<b><i>Hesperophycus californicus</i> (= <i>H. harveyanus</i>)(Olive Rockweed)</b>	X			X	
<b><i>Pelvetiopsis limitata</i> (Dwarf Rockweed)</b>	X			X	
<b><i>Postelsia palmaeformis</i> (Northern Sea Palm)</b>			X	X	
<i>Sargassum muticum</i>	X	X		X	
<i>Scytosiphon</i> spp	X			X	
<b><i>Silvetia compressa</i> (= <i>Pelvetia fastigiata</i>)(Golden Rockweed)</b>	X			X	
Other Brown Algae (any browns not listed above)*	X	X			
RED ALGAE					
<i>Chondracanthus canaliculatus</i> (= <i>Gigartina canaliculata</i> )	X			X	
<b><i>Endocladia muricata</i> (Turfweed)</b>	X			X	
<b><i>Mastocarpus papillatus</i> (blade)(Turkish Washcloth)</b>	X			X	
<i>Mazzaella affinis</i> (= <i>Rhodoglossum affinis</i> )	X			X	
<b><i>Mazzaella</i> spp.(= <i>Iridaea</i> spp.)(Iridescent Weed)</b>	X			X	
<b><i>Neorhodomela larix</i> (Black Pine)</b>	X			X	
<i>Porphyra</i> sp	X			X	
Articulated Corallines (Erect Corallines)	X	X			
Crustose Corallines (Encrusting Corallines)	X	X			
Other Red Algae (any reds not listed above)*	X	X			
ALGAE/PLANTS					
<b><i>Phyllospadix scouleri/torreyi</i> (Surfgrass)</b>	X	X		X	
Non-Coralline Crusts (reds and browns)	X	X			
Other Plant/Algae*	X	X			
ANEMONES					
<b><i>Anthopleura elegantissima/sola</i> (Green Anemone)</b>	X	X		X	
POLYCHAETE WORMS					
<i>Phragmatopoma californica</i>	X	X		X	
MOLLUSKS					
<i>Acanthina</i> spp					X
<i>Fissurella volcano</i>					X
<b><i>Haliotis cracherodii</i> (Black Abalone)</b>			X	X	
<i>Katharina tunicata</i>			X		
<i>Lepidochitona hartwegii</i>					X
<i>Littorina</i> spp				X	X
<b><i>Lottia gigantea</i> (Owl Limpet)</b>	X		X	X	X

## MARINe Core Species (cont.)

(Target species are shown in bold.)

	Photoplots	Transects	Size & Counts	Field Log Recon	Motile Inverts
MOLLUSKS (cont.)					
<i>Mopalia</i> spp					X
<b><i>Mytilus californianus</i></b> (California Mussel)	X	X		X	
<i>Nucella emarginata</i>					X
<i>Nucella canaliculata</i>					X
<i>Nuttalina</i> spp					X
<i>Ocenebra circumtexta</i>					X
<i>Tegula brunnea</i>					X
<i>Tegula funebris</i>					X
<i>Tegula gallina</i>					X
<i>Tegula</i> spp				X	
Limpets	X				
Large Limpets > 15mm (excluding <i>L. gigantea</i> )					X
Medium Limpets 5-15mm					X
Small Limpets < 5mm					X
Chitons	X				
BARNACLES					
<b><i>Balanus glandula</i></b> (Northern Barnacle)	X**				
<b><i>Chthamalus dalli/fissus</i></b> & <b><i>Balanus glandula</i></b> (White Barnacle)	X			X	
<b><i>Pollicipes polymerus</i></b> (Goose Barnacle)	X			X	
<b><i>Semibalanus cariosus</i></b> (Thatched Barnacle)	X			X	
<b><i>Tetraclita rubescens</i></b> (Pink Barnacle)	X			X	
Barnacles		X			
Other Barnacles (any barnacles not listed above)*	X				
ECHINODERMS					
<b><i>Pisaster ochraceus</i></b> (Ochre Star)	X	X	X	X	
<i>Henricia</i> spp			X		
<i>Strongylocentrotus purpuratus</i>				X	
CRUSTACEANS					
<i>Ligia occidentalis</i>				X	
<i>Pachygrapsis crassipes</i>					X
<i>Pagurus</i> spp					X
INVERTEBRATES					
Other Invertebrates (Other Animals) (any inverts not listed above)*	X	X			
SUBSTRATES					
Rock (Bare Rock)	X	X			
Sand	X	X			
<b>Tar</b>	X	X		X	
UNDETERMINED					
Other Substrate (e.g., dead mussel shells or barnacle tests)	X	X			
Unidentified (cannot tell if plant, invert or substrate)	X	X			

\* The specific definitions of these categories are different for photoplots compared to transects.

\*\* Core species for MARINe North only.

## Definitions for Core Higher Taxa and Substrates.

**Articulated (Erect) Corallines:** erect, jointed, calcified, red algae of the Family Corallinaceae, with flexible, articulate fronds arising from crustose bases.

**Barnacles:** adults or juveniles of any barnacle (Phylum Arthropoda, Class Crustacea, Subclass Cirripedia) species.

**Chitons:** adults or juveniles of any chiton (Phylum Mollusca, Class Polyplacophora) species.

**Crustose (Encrusting) Corallines:** thin, flattened, calcified, crust-like red algae of the Family Corallinaceae, having no erect, articulated fronds. Bleached crustose corallines (white) are scored as well because they may be alive.

**Limpets:** adults or juveniles of any limpet (Phylum Mollusca, Class Gastropoda, Family Acmaeidae) species, including *Lottia gigantea*.

**Non-Coralline Crusts:** any thin, flattened, crust-like red or brown algae that are not calcified species of the Family Corallinaceae.

**Other Invertebrates (Other Animals):** any invertebrates not listed or not identifiable in other more specific categories on the score sheet.

**Other Barnacles:** any barnacles not listed or not identifiable in other more specific categories on the score sheet.

**Other Brown Algae:** any brown algae not listed or not identifiable in other more specific categories on the score sheet (score “non-coralline crusts” separately).

**Other Green Algae:** any green algae not listed or not identifiable in other more specific categories on the score sheet.

**Other Plant (Other Algae):** any plants (algae) not listed or not identifiable in other more specific categories on the score sheet.

**Other Red Algae:** any red algae not listed or not identifiable in other more specific categories on the score sheet (score “non-coralline crusts” separately).

**Rock (Bare Rock):** bare, unconsolidated substrates larger than sand/gravel (including cobble, rocks, and boulders) and all consolidated substrates (i.e., bedrock) that contain no obvious living organisms or tar (epoxy corner markers and inconspicuous blue-green algal films are scored as “rock”).

**Sand:** granular, particulate (fine sand to gravel) substrate. Photoplots: score “sand” unless you can positively identify what lies under the sand in the photo. Transects: score “sand” whenever sand cover is 2cm or greater.

**Tar:** fresh or weathered oil or tar coating on the substrate.

**Unidentified:** cannot tell if plant, invertebrate, or substrate.