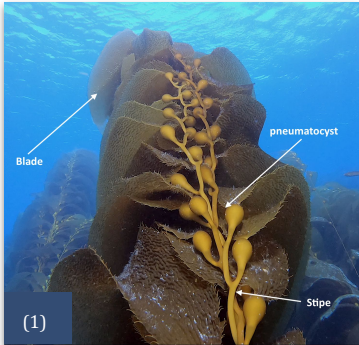


Habitat Characterization Identification Guide

For use with NOAA White Abalone Habitat Characterization Datasheet

Brown Algae

Macrocystis pyrifera, Giant kelp



- Dominant canopy algae, lengths >100 ft
- Round stipes bear numerous blades attached to large gas bladders
- Conical holdfast

Sargassum horneri, Sargassum, Devilweed



- **Invasive**
- Bushy, branching blades with notched tips
- Reproductive blades have small gas bladders
- Individuals usually <3ft



Agarum spp vs. *Dictyoneuropsis* spp

Sieve kelp vs. *Reticulated kelp*

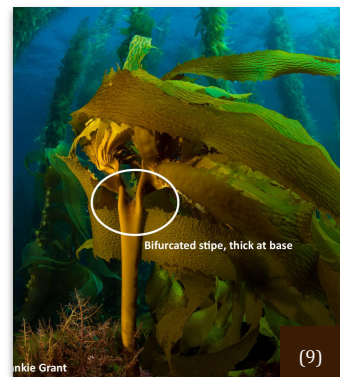
- Two species, often difficult to differentiate
- Short blades <3ft
- *Agarum*: Wide midrib, often full of holes
- *Dictyoneuropsis*: May or may not have midrib, has geometric webbing adjacent to thick stipe

Laminaria farlowii *Oarweed*



- Short stipe with single long, wide blade with dimpling in rows
- No gas bladder
- Blades up to 10 ft+, laying along the benthos

Eisenia arborea *Southern sea palm*

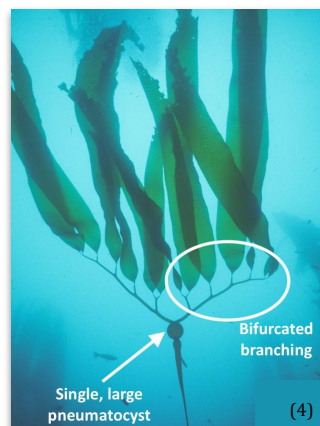


- Palm-tree shape
- Stipe terminates into two branches
- Long, leafy blades with toothed margins
- Up to ~3ft
- No gas bladder



Pterygophora californica *Woody-stemmed/stalked kelp*

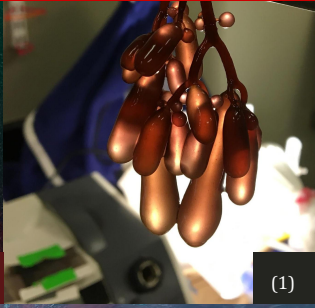
- Single, thick stipe
- Individuals usually densely packed
- Many long, thick blades originate from terminus of stipe
- No gas bladder



Pelagophycus porra *Elk kelp*

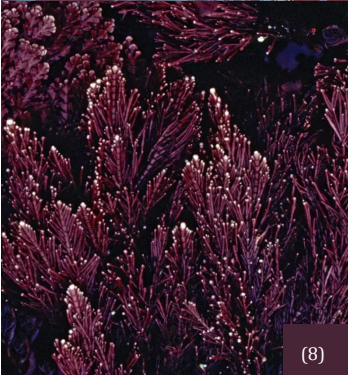
- Deepest growing kelp
- Single, long hollow stipe terminates at single large gas bladder
- Branching pattern resembles elk antlers
- Can be confused with bull kelp- not present in SoCal

Red Algae



Foliose red algae

- Lobed, leaflike blades, i.e. “foliose”
- Common understory algae
- Gas bladders unlikely (see: sea grapes (*Botryocladia spp*), second from left)
- Can be large, fleshy, and roughly textured (see: Turkish towel (*Chondracanthus exesperatus*), far left)
- May grow in densely packed strands
- Provides shelter, habitat, and food for many cryptic species



Articulate Coralline Algae

- Algae group with rough, coral-like texture, i.e. “coralline”
- Upright, with calcified, segmented branches
- Shape ranges from tree-like to slender
- Colors range from light to dark, pink to purple
- Generally small (<8 in)
- Often found in dense concentrations in the intertidal and subtidal zones



Encrusting Coralline Algae

- Similarly to Articulate, has hard and rough texture
- Forms a superficial crust that can often be many layers thick
- Encrusts mostly on rocks, may also grow on plants or animals
- Flat, coral-like appearance
- Preferential substrate for many juvenile invertebrates

Invertebrates

Mesocentrotus fransiscanus (Red urchin) and *Strongylocentrotus purpuratus* (Purple urchin)

- Herbivorous, often grazing on brown algae
- Spherical, spiny endoskeleton
- *M. fransiscanus* (left side of picture)
 - Typically larger than *S. purpuratus*, deep red color
- *S. purpuratus* (right side of picture)
 - Smaller, often found in groups, color ranges from blue-red-purple

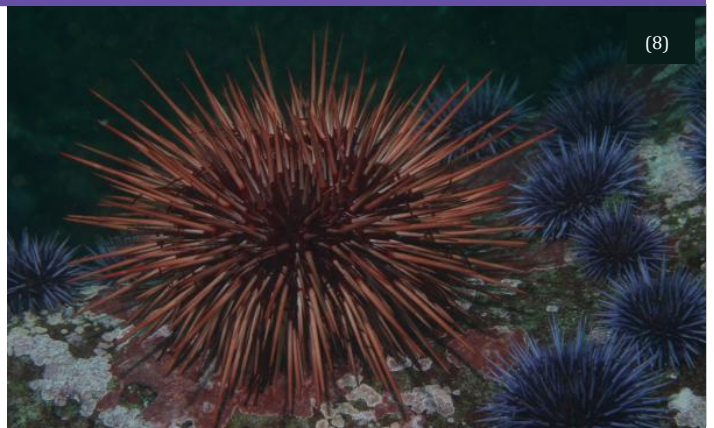


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