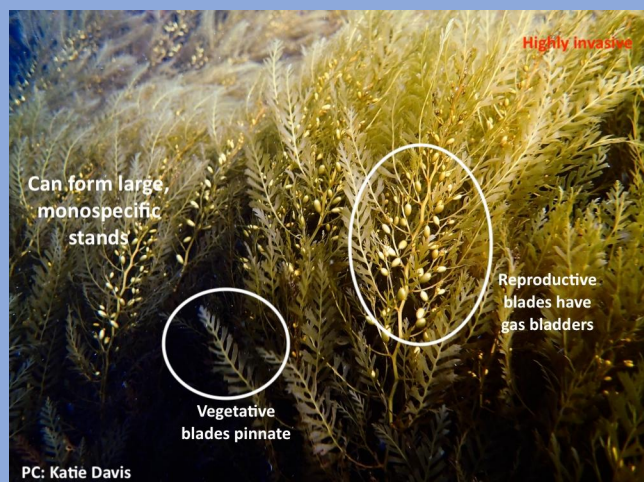


# Habitat Characterization Datasheet

## Species Identification Guide

### Brown Algae

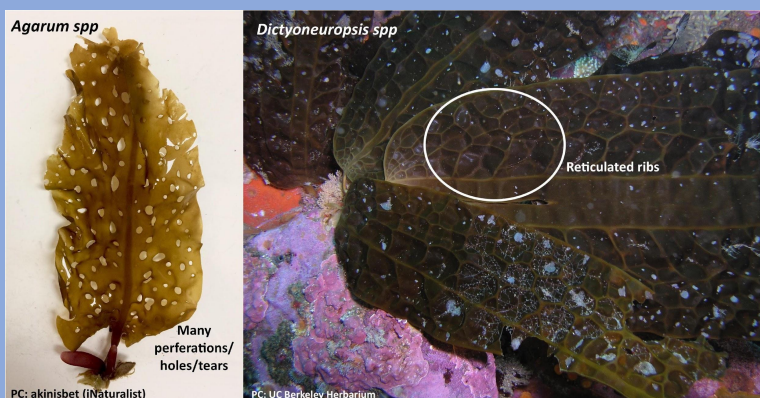
- Often large, fleshy, and golden brown
- Basis of kelp forest ecosystem
- Anchored to the bottom with a holdfast, generally with many blades



#### Devil weed

*Sargassum horneri*

- Competitive invasive
- Weedy/bushy
- Individuals usually <3ft
- Reproductive blades have small gas bladders



#### Sieve kelp / reticulated kelp

*Agarum spp.* / *Dictyoneuropsis spp.*

- Often confused for one another
- Short blades <3ft
- Sieve kelp often full of holes as individuals mature
- Reticulated kelp has geometric webbing adjacent to thick stipe



#### Woody-stemmed kelp / stalked kelp

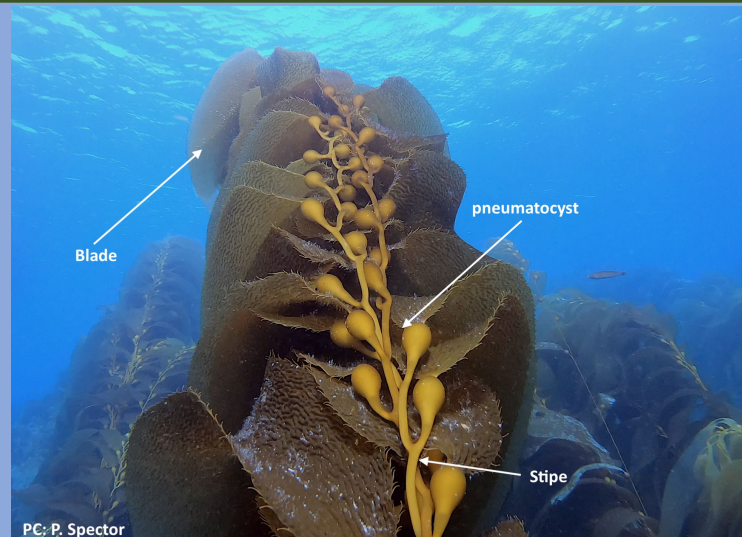
*Pterygophora californica*

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

#### Elk kelp

*Pelagophycus porra*

- 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 found in So Cal)



#### Giant Kelp

*Macrocystis pyrifera*

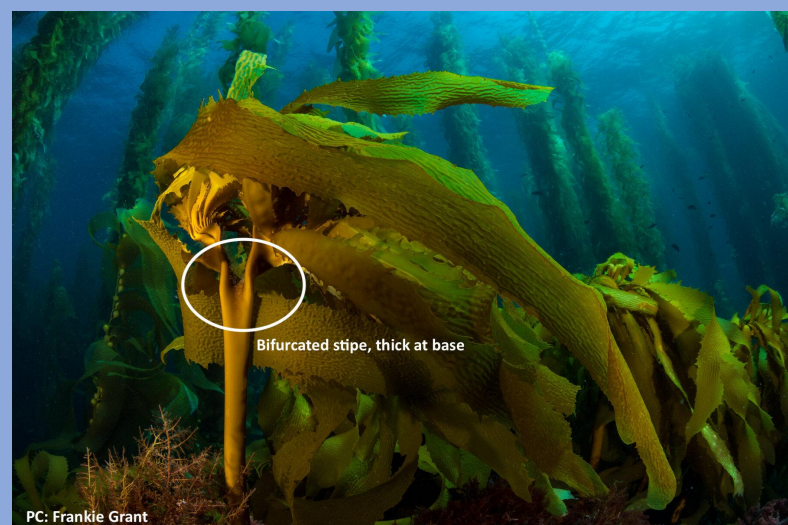
- Dominant canopy forming species
- Many bundled stipes arising from finger-like holdfasts
- Mature individuals can be >100ft



#### Oarweed

*Laminaria farlowii*

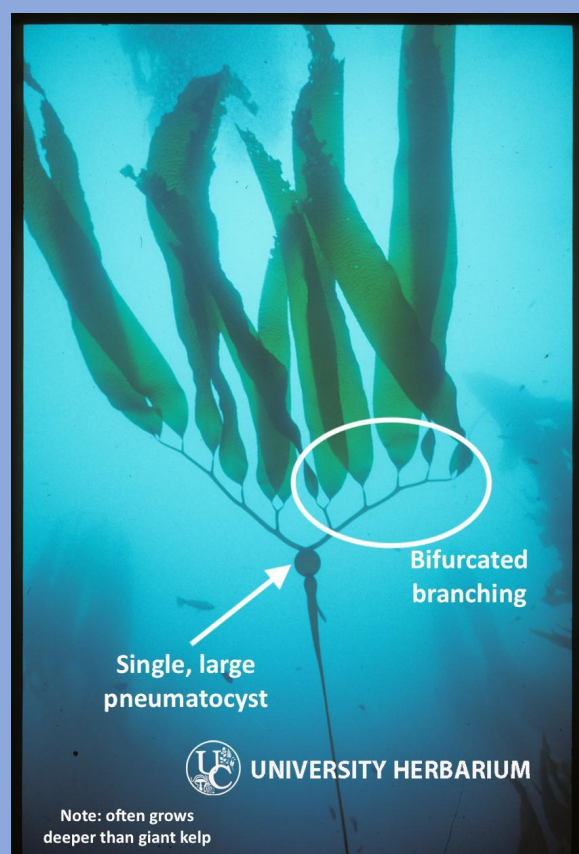
- No gas bladder
- Single small, short stipe
- Blades life prostrate on benthos
- Can be >10ft long



#### Southern sea palm

*Eisenia arborea*

- Single, thick stipe bifurcates (splits) where blades start
- Individuals usually ~3ft tall
- Many long blades; no gas bladder



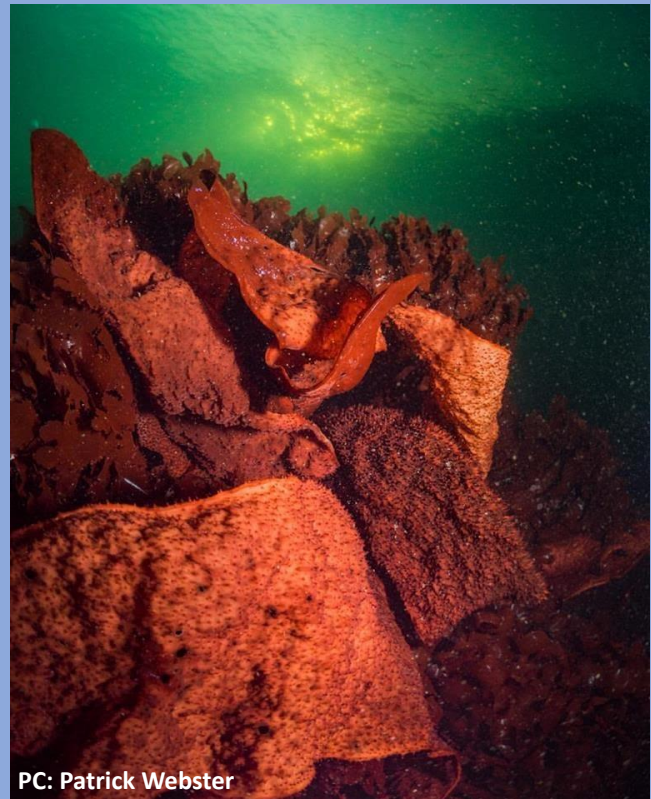


# Habitat Characterization Datasheet

## Species Identification Guide

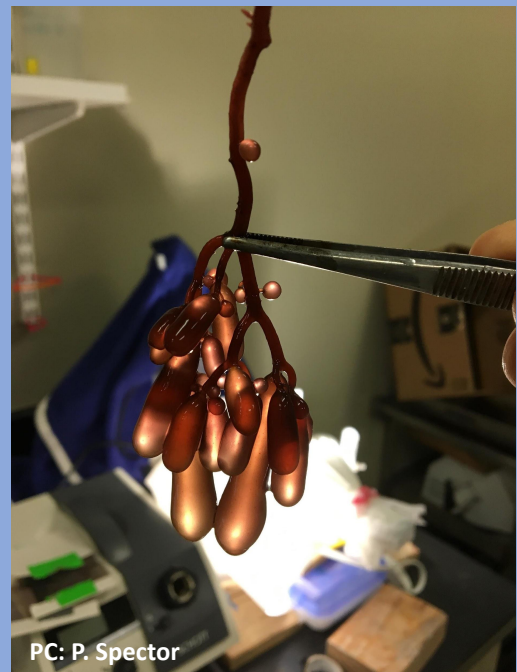
### Red Algae

- Highly variable, many different morphologies
- Can be fleshy, weedy, coralline, etc.
- Often red, can be iridescent green, brown, purple, or pink



#### Foliose red algae

- Foliose = lobed, leaflike blades
- Major component of understory algae
- Gas bladders unlikely (see: sea grapes (*Botryocladia spp*), right)
- Can be large, fleshy, and roughly textured (upper right, Turkish towel (*Chondracanthus exesperatus*), upper right)
- May grow in densely packed strands (top left)
- Provides shelter, habitat, and food for many cryptic species



#### Articulate Coralline Algae

- Coralline = coral-like
- Calcified, branching red algae
- Can be tree-like (above, right), or slender (above, right; mixed species with foliose red algae)
- Generally small (<8inch), can be very dense



#### Encrusting Coralline Algae

- Often pink
- Forms a superficial crust that can often be many layers thick
- Flat, coral-like appearance
- Preferential substrate for many settling invertebrates (i.e., juvenile sea urchins)

### Invertebrates

#### Sea urchins

- Herbivorous, often grazing on algae (generally browns)
- Red urchin (*Mesocentrotus franciscanus*); left
  - Large, deep red
- Purple urchin (*Stronglyocentrotus purpuratus*); right
  - Smaller, ranges from blueish to reddish to purple

