

# **PNW Invertebrate ID**

Fishinar 1/16/2014, Janna Nichols — Instructor Questions? Feel free to contact me at janna@reef.org

# Stars and Squirts

This session will concentrate on the Echinodermata and Urochordata phyla

## **Echinodermata**

Echinodermala	
	<b>Leather Star</b> - Five arms, with bluish-gray-beige base color, with orangish-red patches. The patches feel soft like suede leather when touched.
	<b>Sunflower Star</b> - Size of garbage can lid, can have up to about 24 arms. Fastest mover of the sea stars.
	Spiny Pink Star - Five very beefy arms, with raised center. Appears white until you shine your dive light on it, then you can see the pink.
	Orange Sea Cucumber - Often all you see are the feeding tentacles. 10 highly branched tentacles, with long body with 5 rows of tube feet down it. Burrows into cracks between rocks.
	California Sea Cucumber - Tan color, like Californians have. : ) Lots of fake-out 'thorns' that look sharp, but are not. Feeding appendages around mouth mop up detritus (icky stuff) from the sea floor.
	Red Sea Urchin - Can be red, or purple (and all shades in between). Long spines.



**Green Sea Urchin** - Cream to greenish-brown, with short spines.

**Eccentric Sand Dollar** - "Eccentric" not because it's weird, but because the 5 petal shapes are not CONcentric like other sand dollars. White base with black short furry spines.

### **Urochordata**

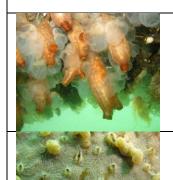


**Shiny Orange Sea Squirt** - It's shiny, it's orange, it lives in the sea, and it squirts water out of one of its siphons. Close up and shrink down in reaction to approaching divers.

**Orange Social Ascidian** - If you've seen one, you've seen a bunch, because they're so social. This one you'll just mark 'Present' on your survey form. Typically found on the sides of rock reefs, clustered very closely together. They are very small.

### **Urochordata**

#### **Invasive Tunicates**



**Club Tunicate** - A large, rounded, elongated dome with small bumps. In shades of brown to reddish, to cream colors.



#### **Invasive Didemnum Tunicate -**

Look for small holes, with channels leading from them to larger holes. "Drips' form around those larger holes, and more mature colonies of this tunicate are very drippy in appearance.

**Transparent Ciona Savignyi** - Clear long tubes, with yellow specks around siphon. Scalloped edges to siphons. Also light yellow to cream flecks on body. Retract when touched.