Reef Etiquette and Hawaiian Reef species ID
Today’s experience

- Quick lecture on reef etiquette and common reef organisms
- Swim/snorkel test
- Test out your new reef organisms knowledge on a ‘get to know the reef’ guided snorkel
Reef Etiquette
The reef is alive!

Coral is an ANIMAL that has a plant (ALGAE) living inside its cells, and together they form the calcium carbonate (MINERAL) reef structure that is the foundation of the coral reef ecosystem.

This is a typical Hawaiian reef.

Each colony has many coral individuals, all of them identical clones within the colony.

Each individual coral animal is called a polyp, the brown/green specs inside the polyp tissue are actually the symbiotic algae or zooxanthellae.

A closer look reveals separate colonies of coral on the reef.
Reef etiquette and water safety

Please don’t:

- step, stand or kick the reef with your fins
- Stir up sediment with your fins
- Grab the reef or any living organism
- Stick your hands into crevices
- Chase after fish or turtles
- Touch experiments on the reef
- Stay with your buddy
- Stay near the dive buoy
Common reef organisms

- Algae
- Sponges
- Corals
- Worms
- Sea cucumbers
- Sea urchins
- Crabs
- Snails
Algae

- Photosynthetic, but not true plants
- Mainly aquatic (marine and fresh), some terrestrial
- Three main phyla
  - Green (chlorophyta)
  - Red (Rhodophyta)
  - Brown (Phaeophyta)
Green algae: *Bryopsis pennata*
Green algae: *Derbesia fastigiata*
Green algae

**Halimeda discoidea**

**Ventricaria ventricosa**
Green algae

Dictyosphaeria cavernosa
Red algae: Crustose coralline algae

Image by M. Rivera
Red algae: Crustose coralline algae

Image by M. Rivera
Red algae

Acanthophora specifera  Kappaphycus alvarezii
Red algae: *Gracilaria salicornia*
Brown algae: *Lobophora variegata*  
*Padina australis*
Sponges
Corals, anemones
Rice coral, *Montipora capitata*
Rice coral, *Montipora capitata*
Finger coral, *Porites compressa*, pōhaku puna

Image by M. Rivera
Finger coral, *Porites compressa*, pōhaku puna

Image by M. Rivera

Image by M. Rivera
Finger coral (*Porites compressa*) with rice coral (*Montipora capitata*)

Image by M. Rivera
Lobe coral, *Porites lobata*, pōhaku puna

Image by M. Rivera
Lobe coral, *Porites lobata*,
pōhaku puna

Image by M. Rivera
Lace coral, *Pocillopora damicornis*
Cauliflower coral,
*Pocillopora meandrina*
Mushroom coral, *Fungia scutaria*, ‘āko ‘ako ‘a kohe

Image by M. Manning

Image by M. Rivera
Glass anemone, *Aiptasia pulchella*
Feather duster worm
Christmas tree worm

Image by J. Puritz
Sea Cucumbers: loli
Sea urchins: vana

Banded urchin

Slate pencil urchin
Sea urchins: vana

Rock boring urchin

Collector urchin
Tiger cowry: leho
Shrimps and crabs
Get to know the reef

- Take pictures of as many organisms as you can
- For each picture, record what you think it is
- The last three pictures should be unknowns that we didn’t cover or that you don’t remember seeing in this presentation
- Use the field guide books to confirm your knowledge of the reef!