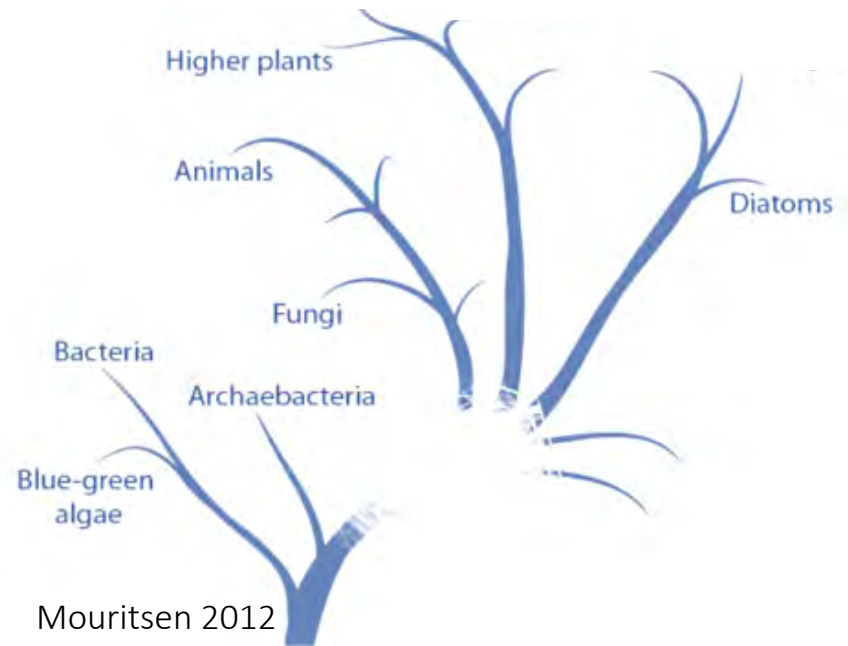




# The Importance of Beach Cast Seaweeds

Presented to the Alaska Board of Fisheries  
by Brian Ulaski, UAF  
10 December 2019  
RC-3 TAB-7

What are seaweeds anyway?



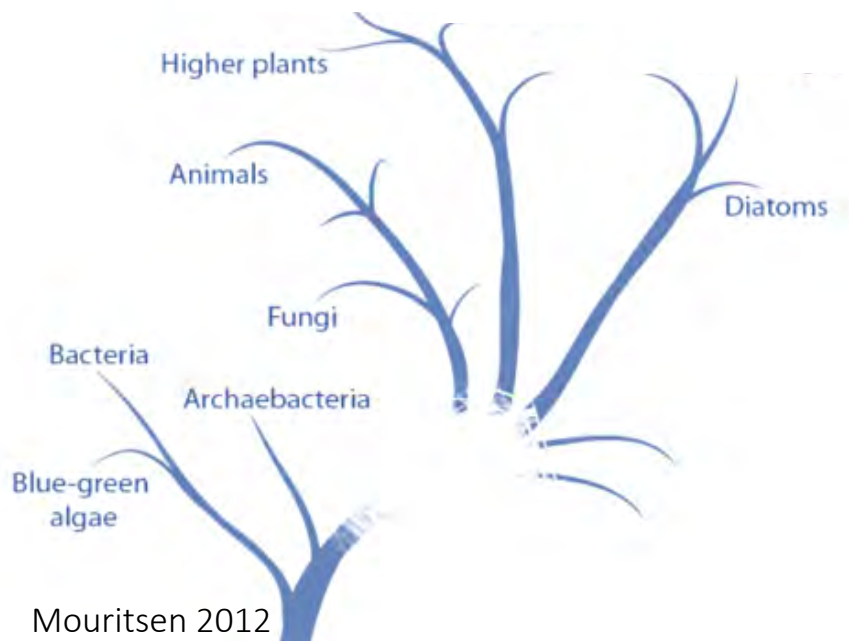
Mouritsen 2012



Chlorophyta

ispotnature.org

What are seaweeds anyway?



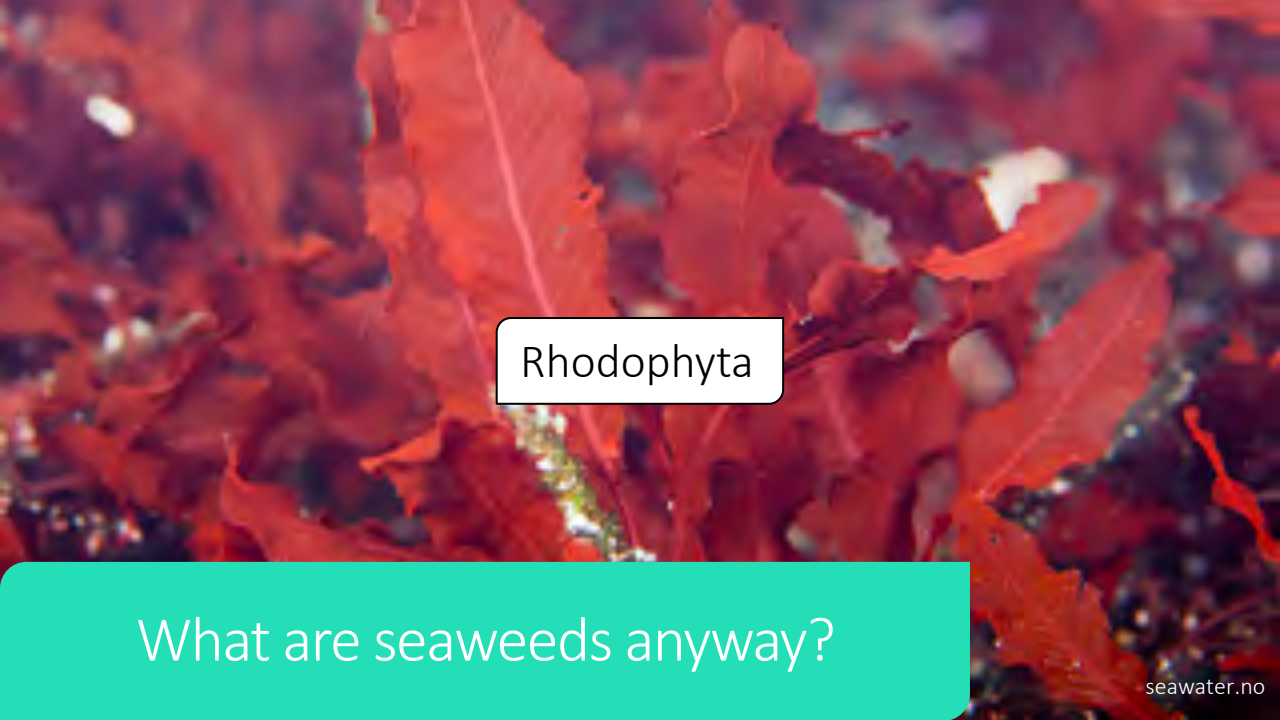
Mouritsen 2012





Chlorophyta

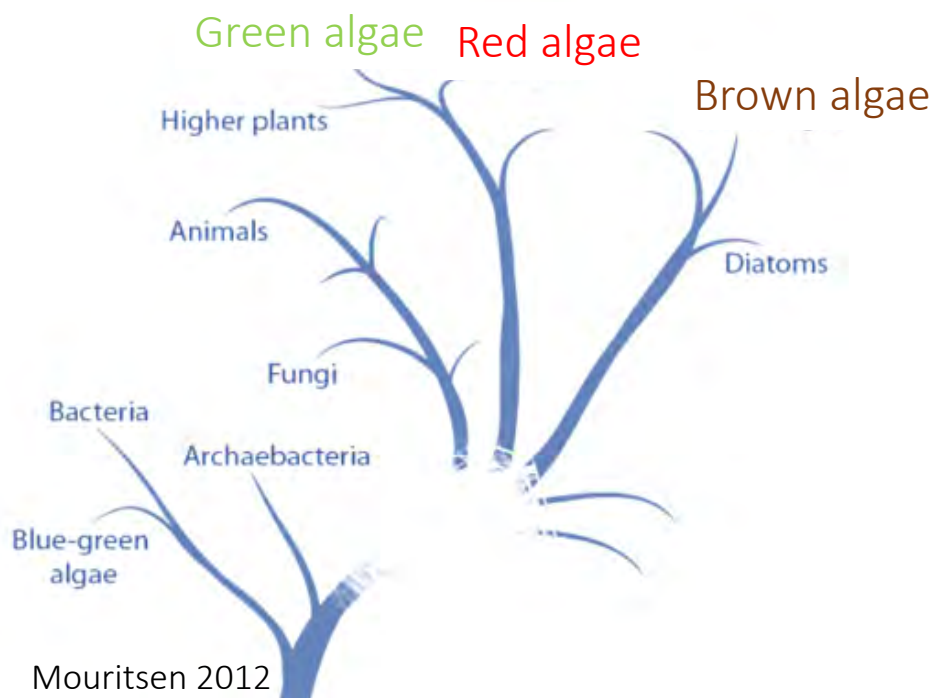
ispotnature.org



Rhodophyta

seawater.no

What are seaweeds anyway?

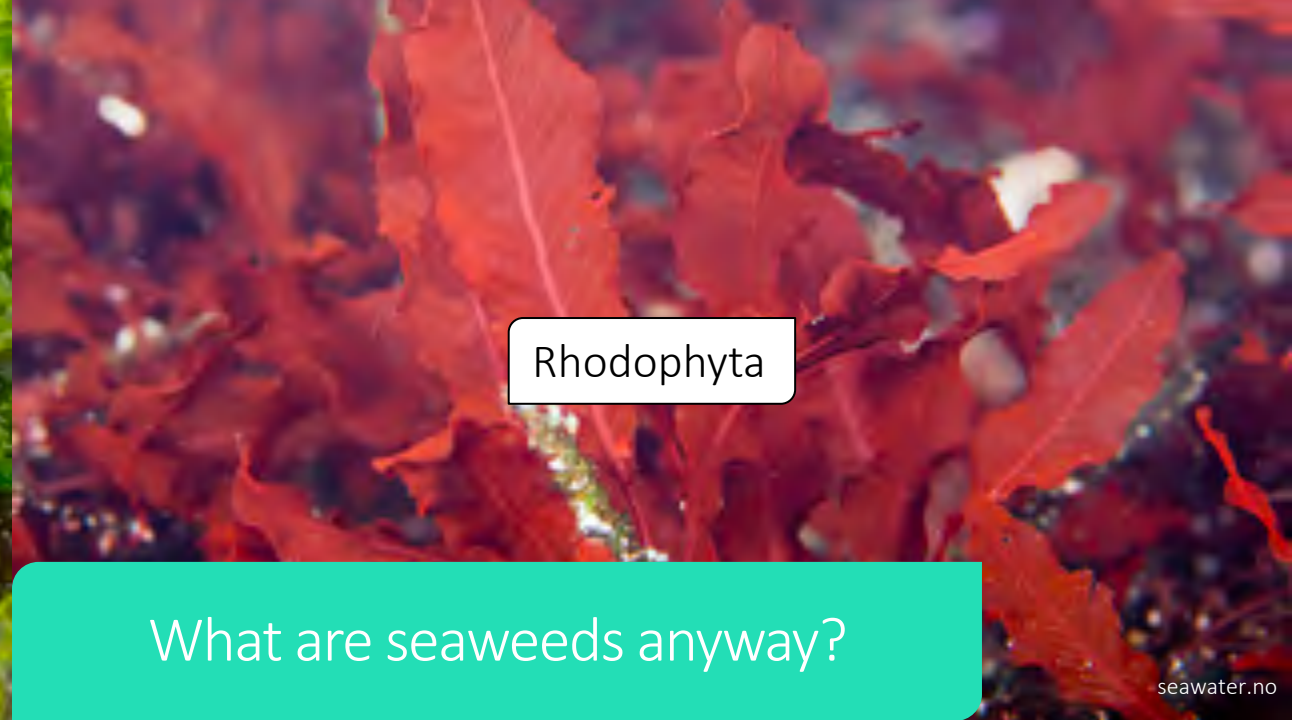


Mouritsen 2012



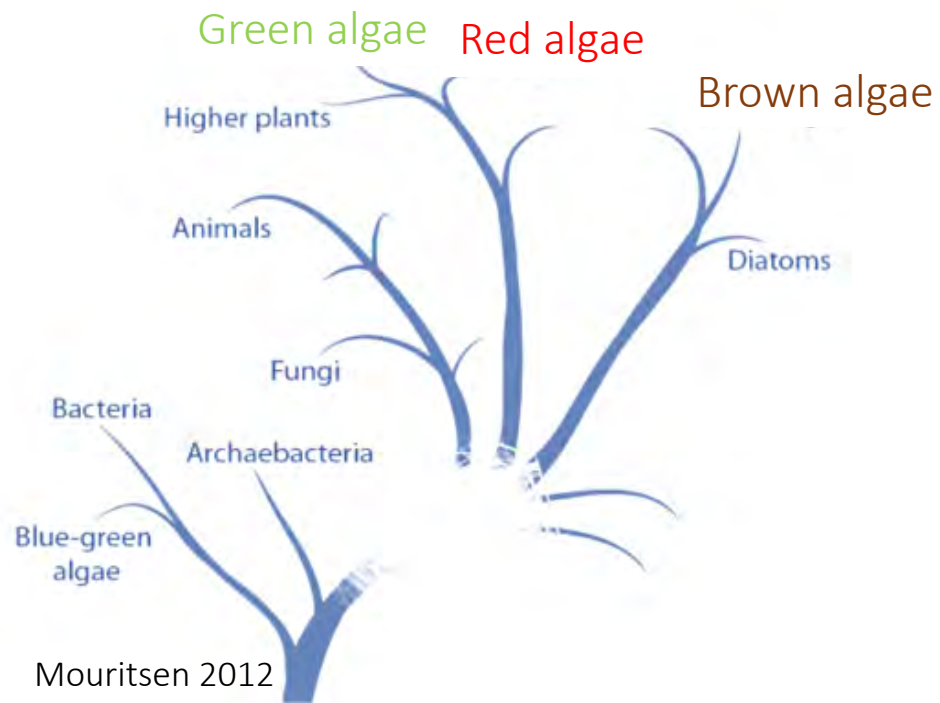


Chlorophyta



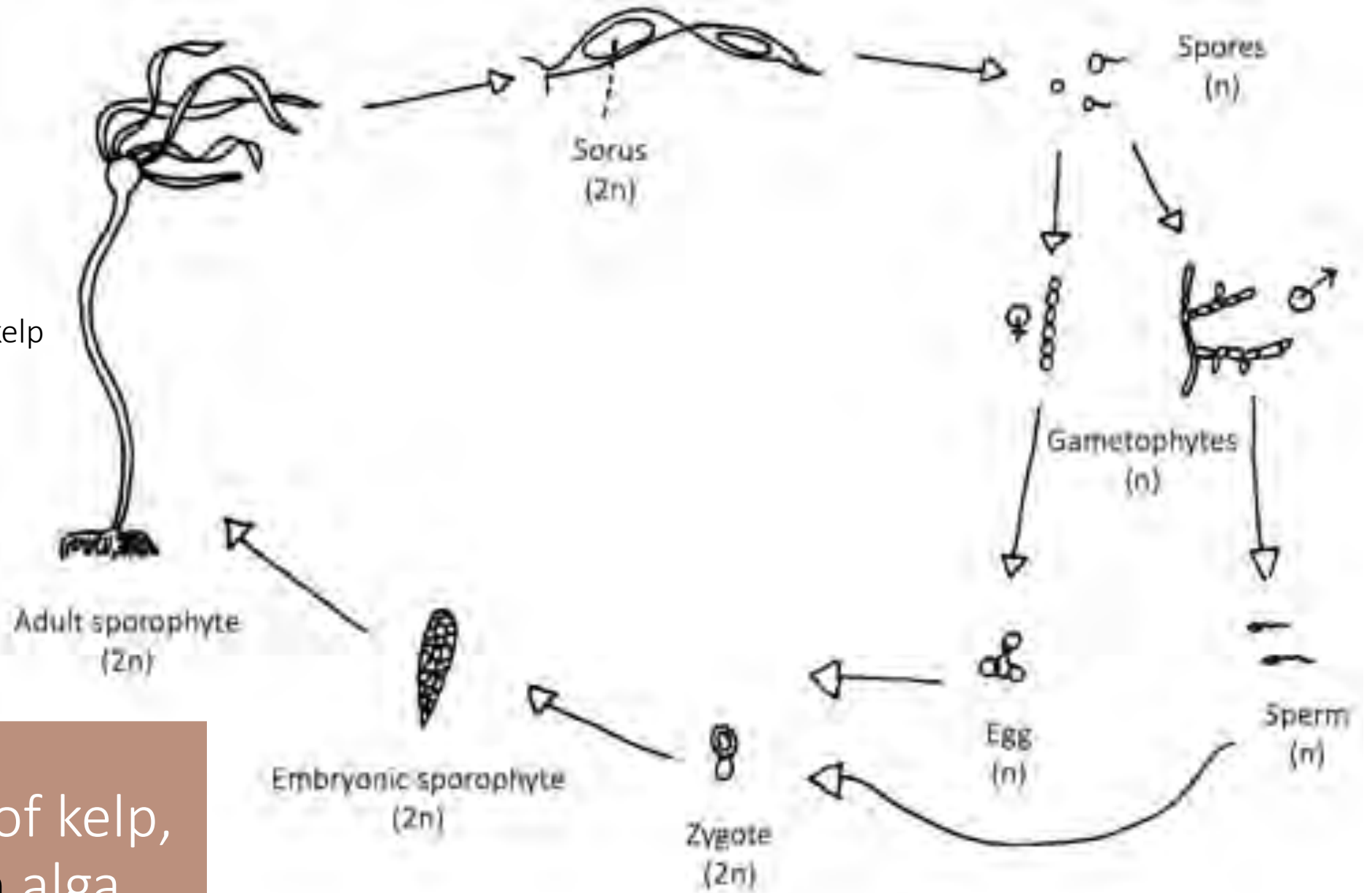
Rhodophyta

What are seaweeds anyway?



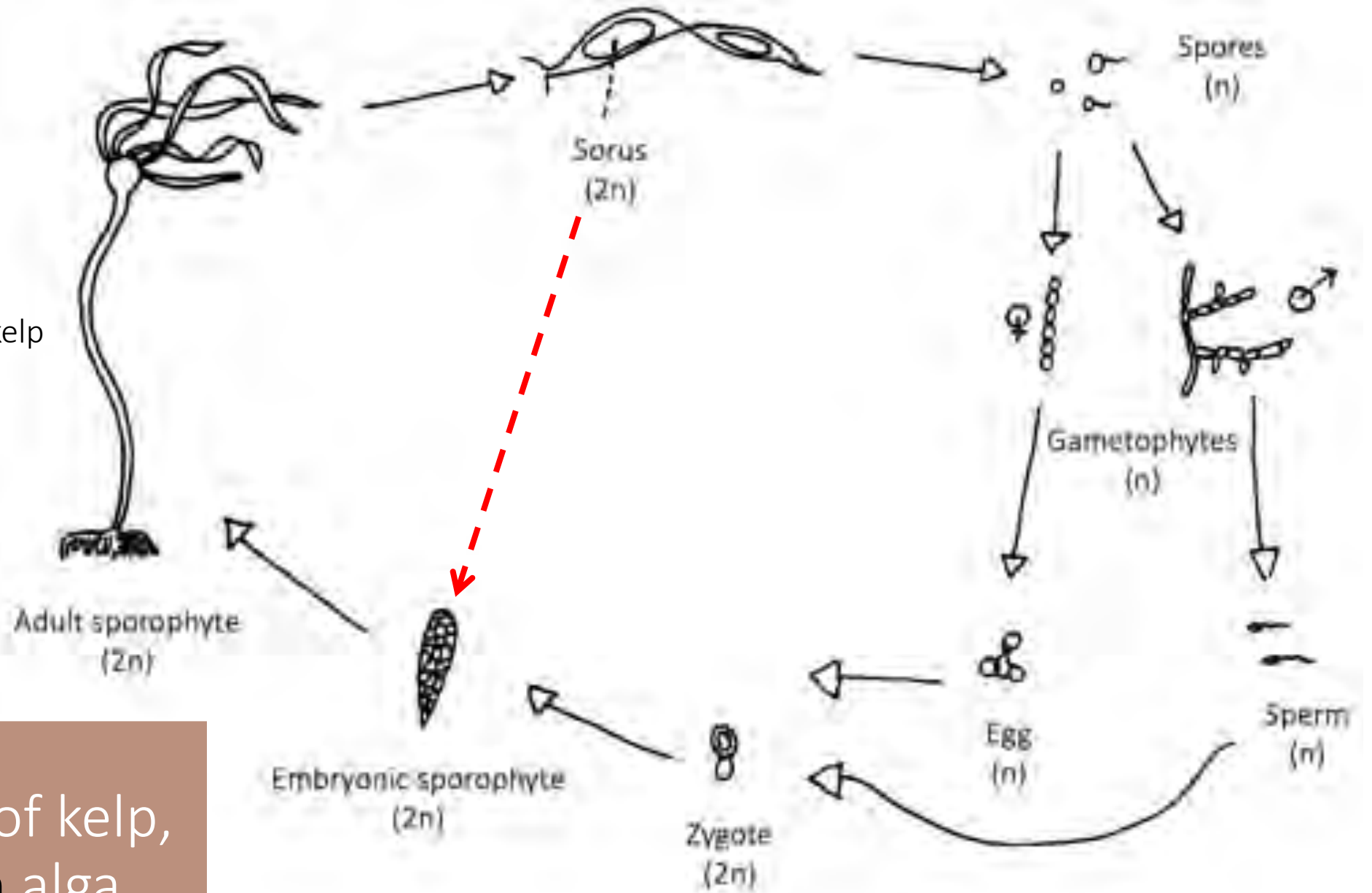
Ochrophyta

Bull kelp



Life cycle of kelp,  
a brown alga

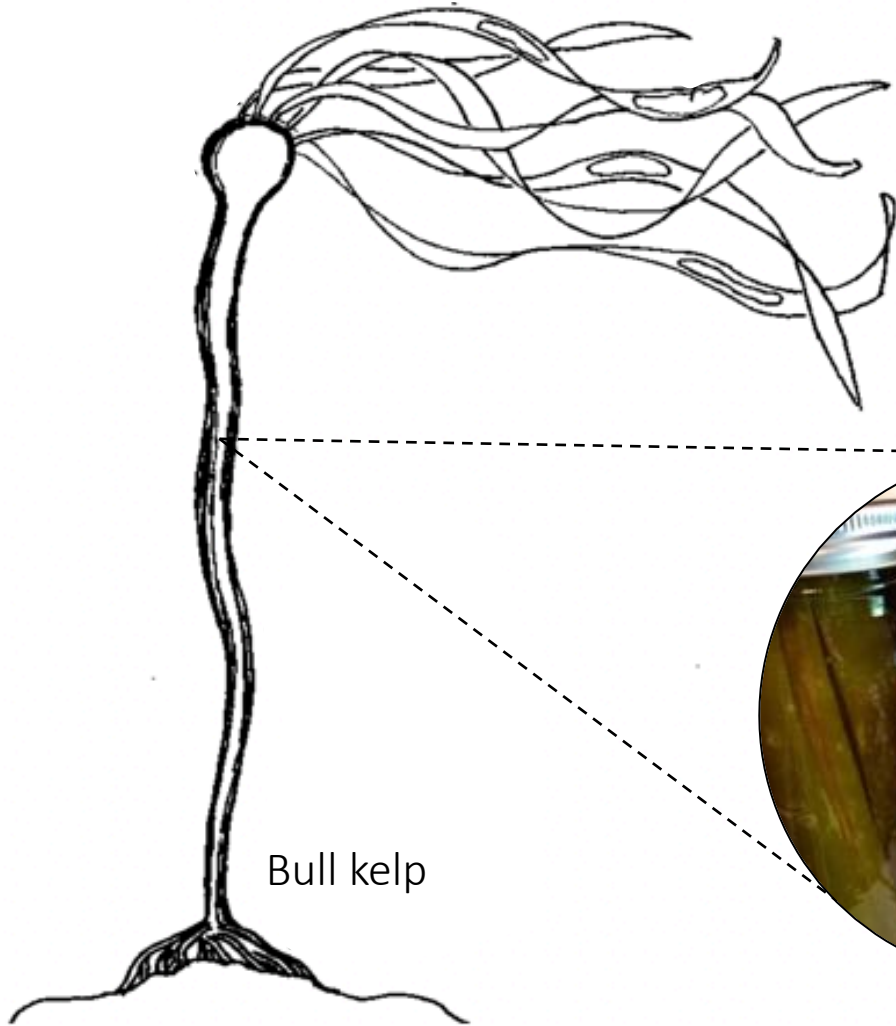
Bull kelp



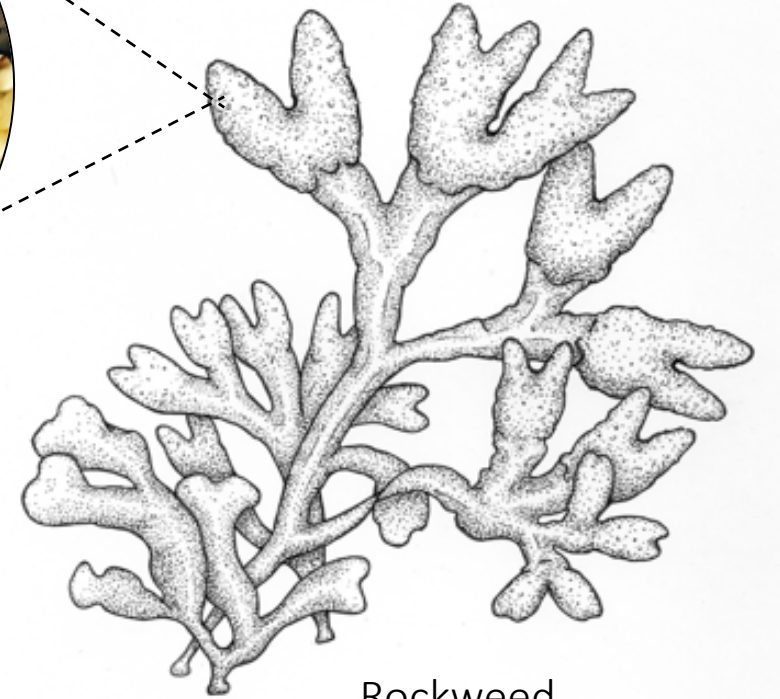
Life cycle of kelp,  
a brown alga



Stage harvested



Bull kelp



Rockweed





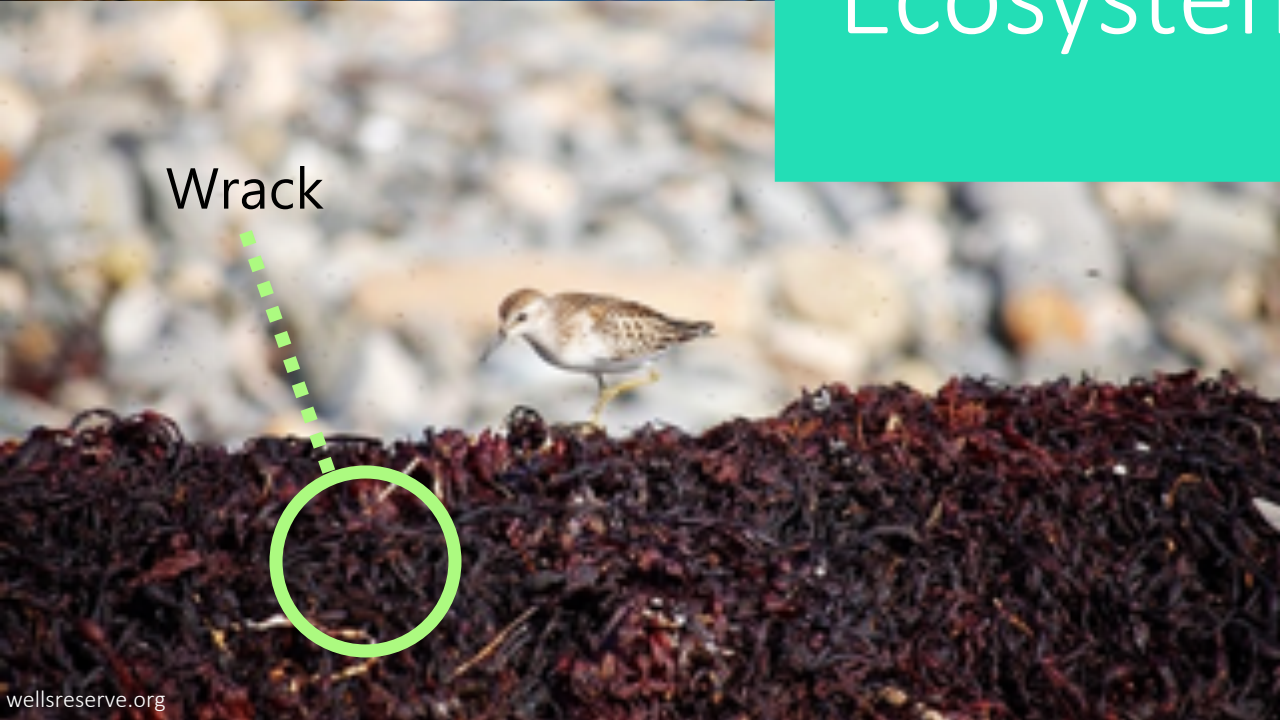


sciencenewsforstudents.org



alrtdiver.com

# Ecosystem services



Wrack

wellsreserve.org



imr.no







A large pile of driftwood and seaweed is scattered across a sandy beach. The driftwood consists of various pieces of weathered wood, some straight and some curved. The seaweed is a mix of brown and green, with some long, thin strands and some thicker, more tangled pieces. The beach is wide and sandy, with the ocean waves visible in the background under a cloudy sky.

Wrack





# Wrack



chriserst

richardbangerl

miamcpherson

kennybraun



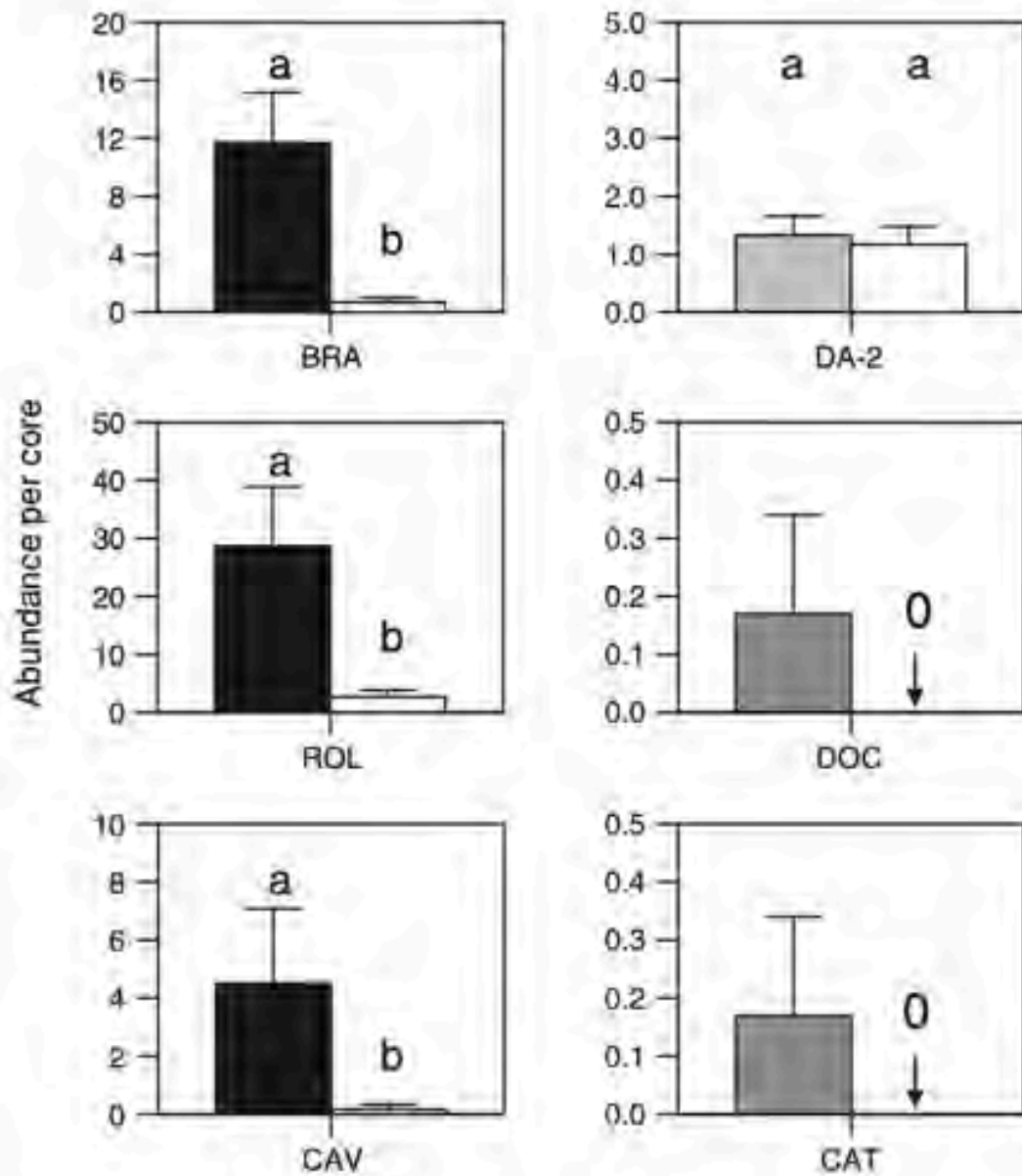


Wrack as  
a resource





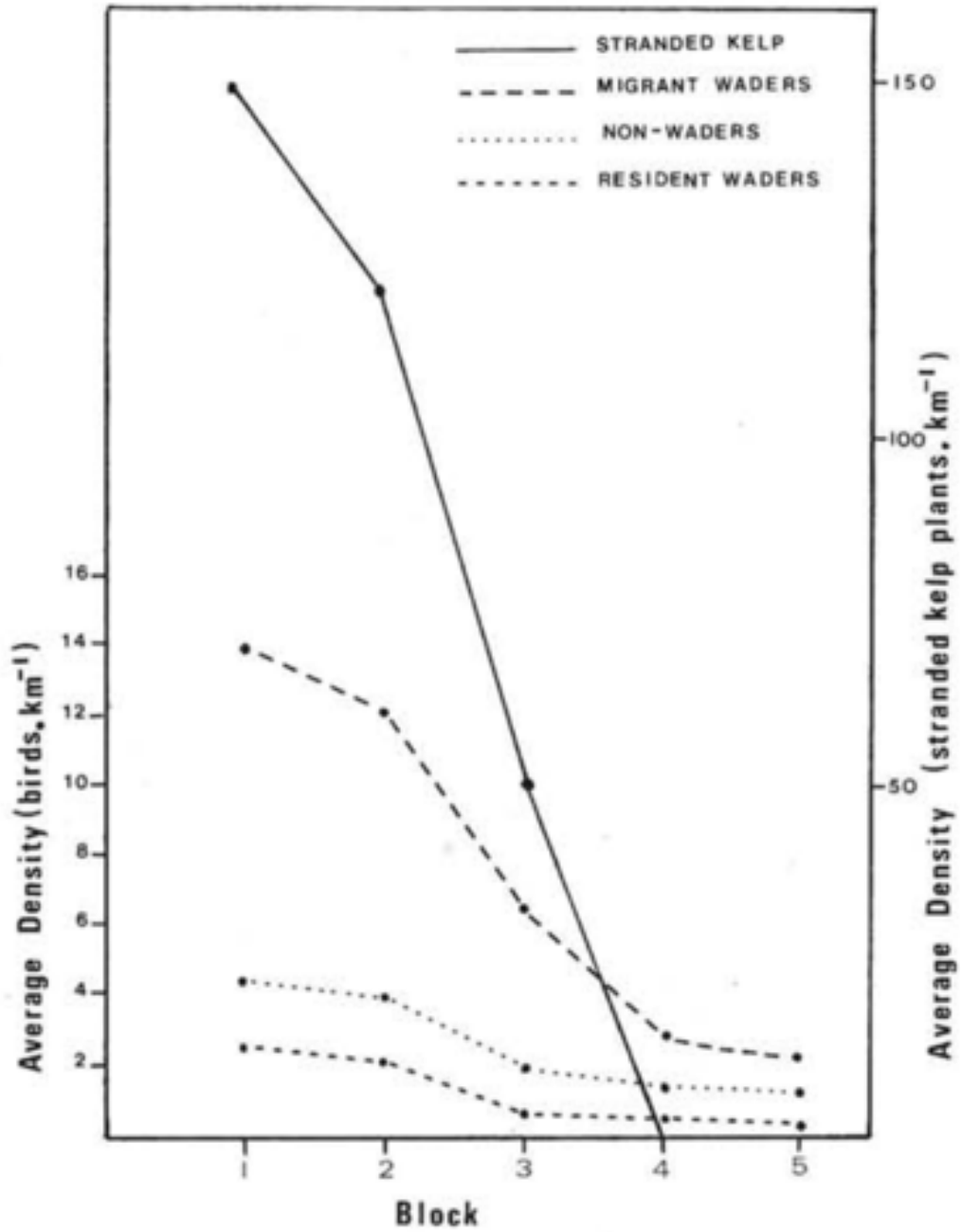
= wrack  
 = bare sand



Invertebrate abundance

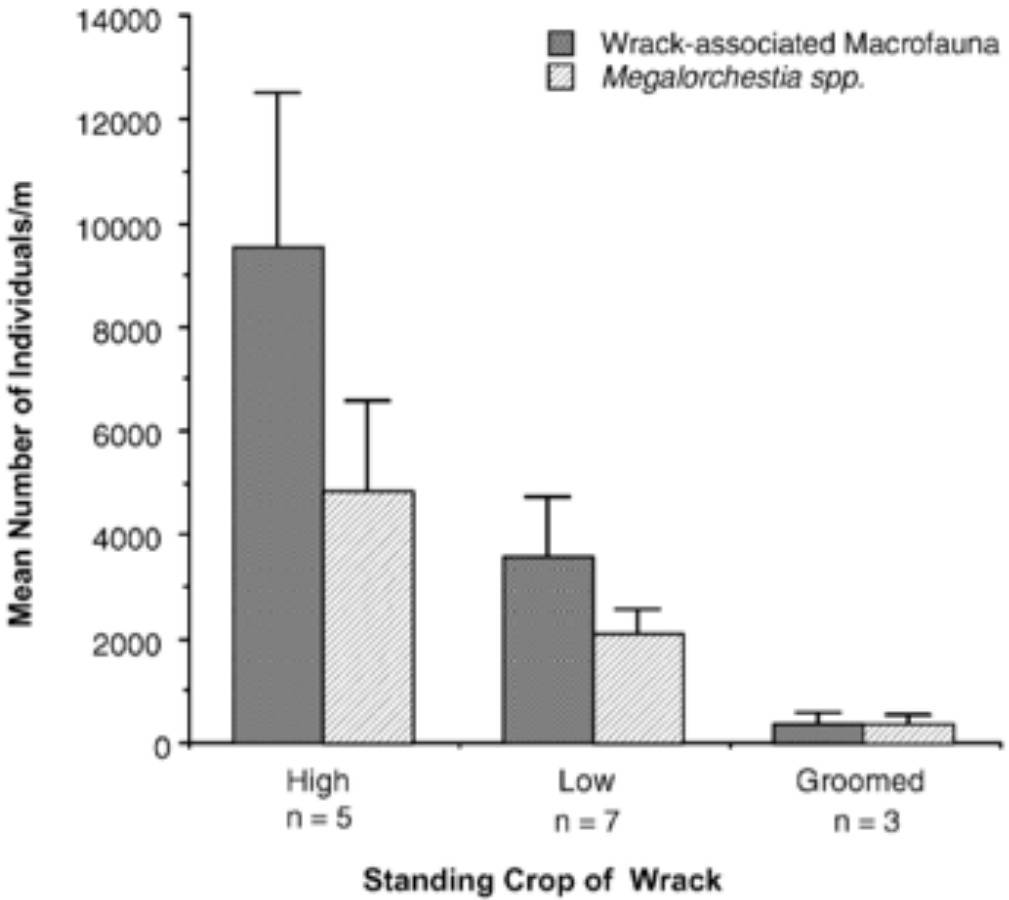






Shorebird density





Wrack removal





## Take away

- Seaweeds are highly productive foundation species
- Provide services to multiple ecosystems
- Wrack influences animal community structure, higher trophic levels, and ecological processes on beaches

## Our research

Summer 2020 field season

