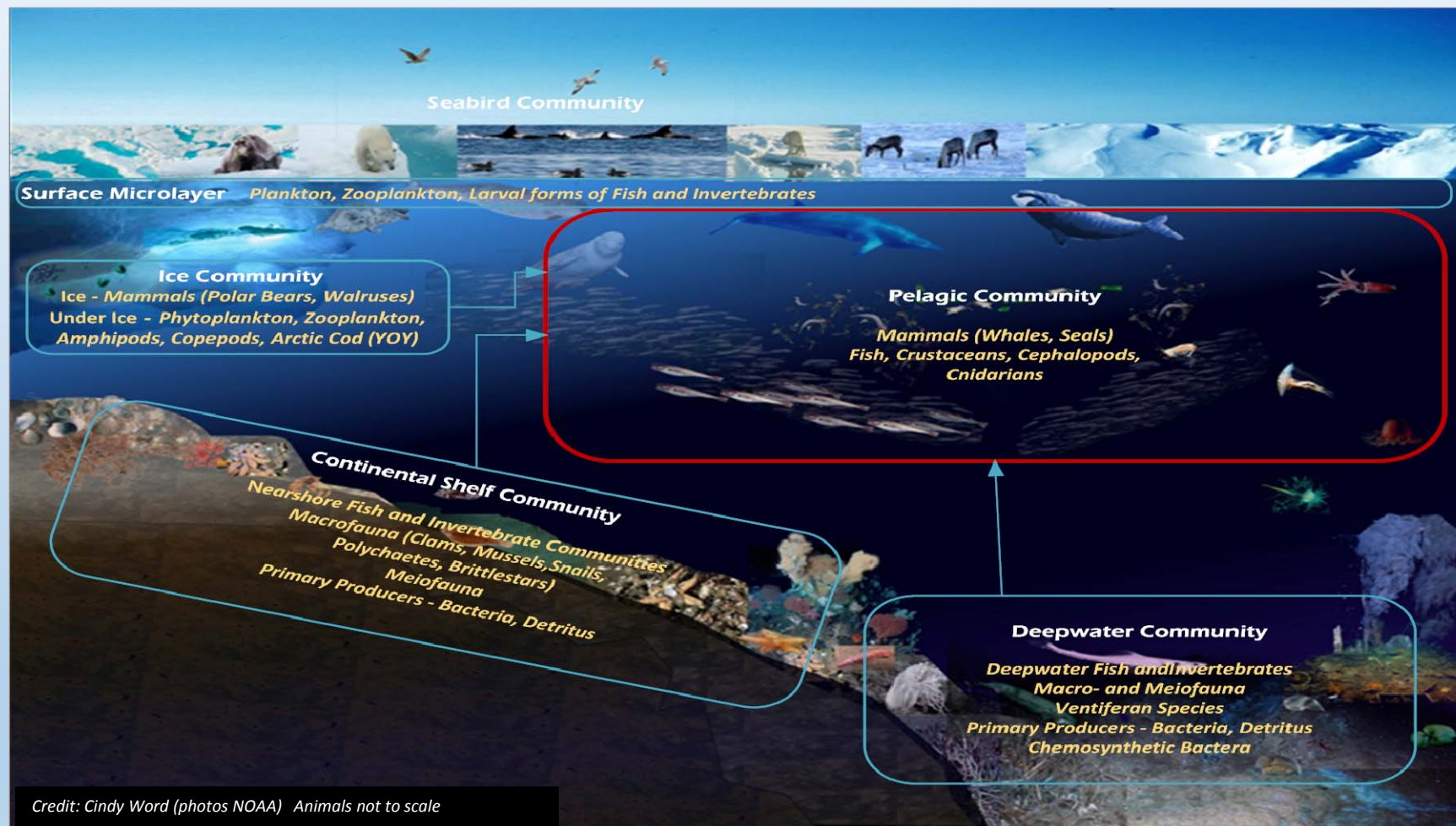




Deep-Water Arctic





Deep Water Attributes to Consider for the Arctic

- Biological Transport Mechanisms
 - Scavenger based communities
 - Diel vertical migrators (both up and down on various time scales; hourly, daily, seasonally)
 - Non-diel vertical migrators
 - Lipid rich fecal materials
 - Short food webs
 - Particulate organic carbon (POC) terrestrial or marine sources'; Dissolved organic carbon (DOC) from oil and gas sources as well as metabolism of POC sources
- Clathrate/Hydrate changes in bioavailability
- Age of organisms e.g. 450 year old clams
- Hard substrates – colonial organisms
- Cold, dark environments
- Slow currents
- Diverse but relatively low abundance
- Congregations on edges (sediment/water; water/water interfaces)
- Successful spawning periodicity?
- Difficult but achievable ways to match deep water conditions

Except for surface ice interactions, the Arctic has the same issues to address as other aquatic environments