

A photograph of two sea otters floating on their backs in blue water. The otter on the left is looking towards the camera, while the one on the right is looking away. Both have dark fur and prominent white whiskers.

Sea Otters, Sea Urchins & Kelp; Changes along the West Coast of Vancouver Island.

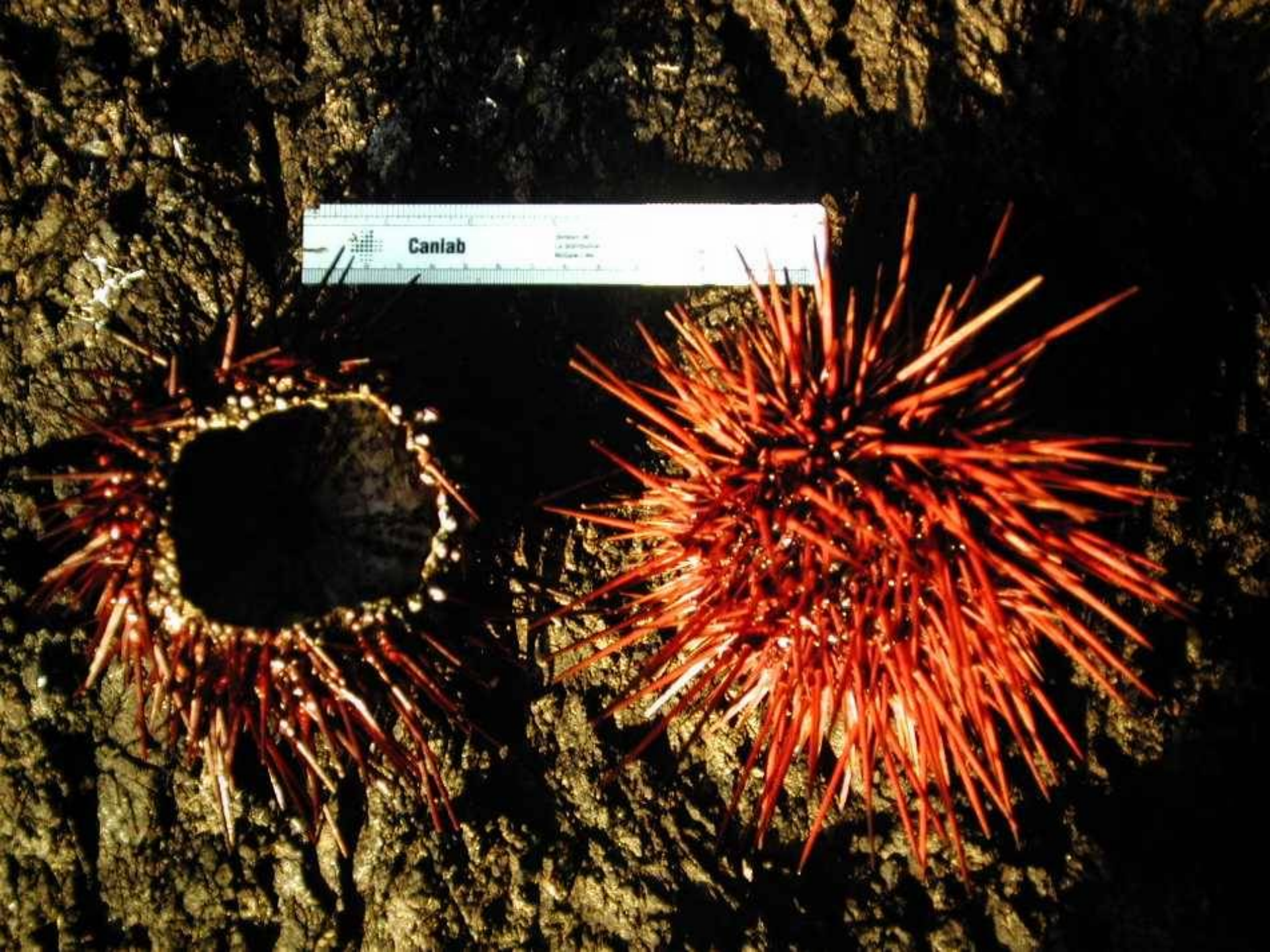
Jane Watson
Vancouver Island University

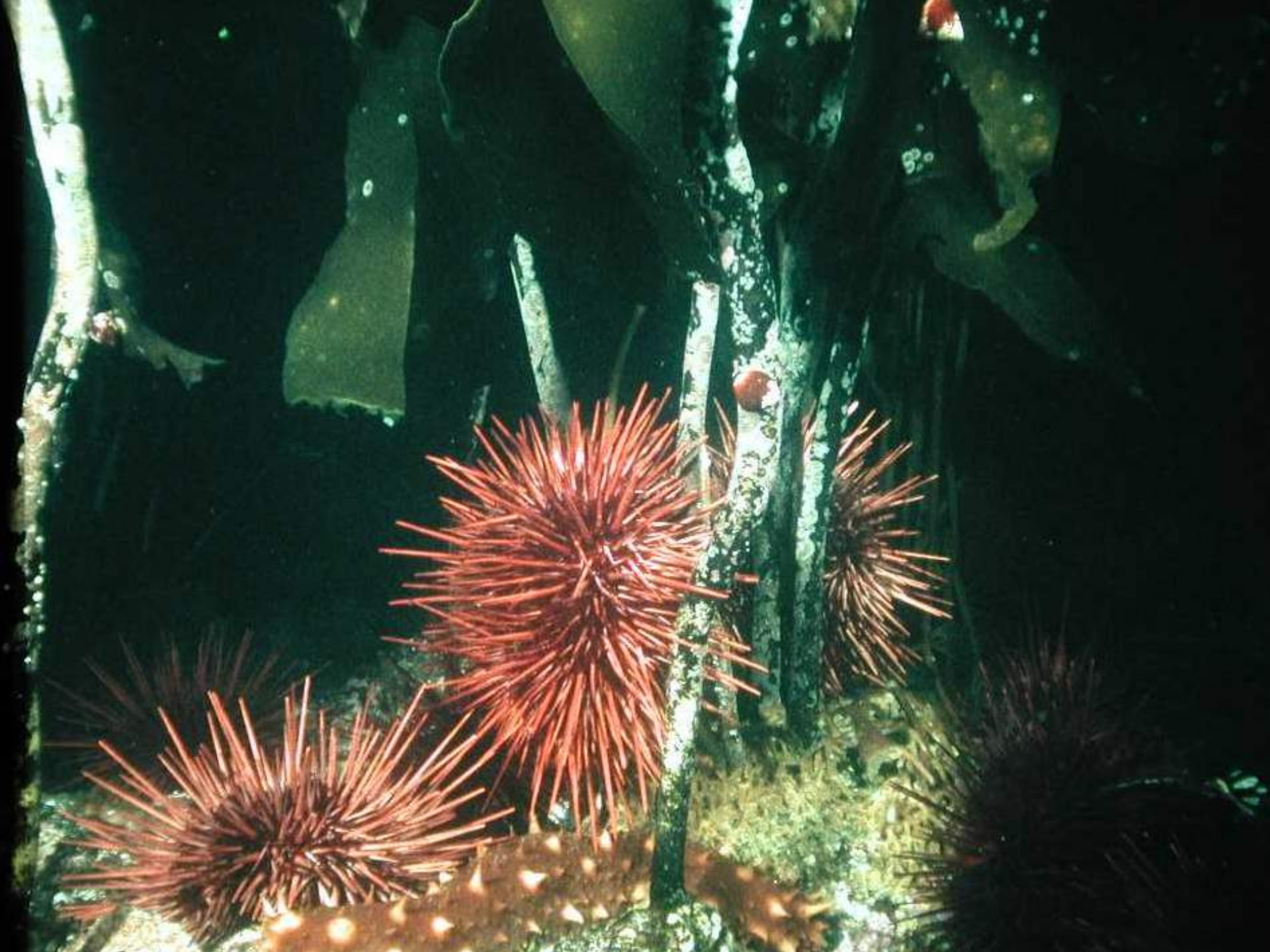
Thanks to:

- **Friends of the Ecological Reserves**
- **Ecological Reserve Unit Province of BC**
- **Vancouver Island University**
- **Fisheries and Oceans Canada**
- **Vancouver Aquarium Marine Sciences Centre**
- **Bamfield Marine Science Centre**
- **University of California at Santa Cruz**
- **University of British Columbia**
- **Archipelago Marine Research**

***& especially the Ka:’yu:’k’t’h’/Chek’tles7et’h’
First Nations, the community of Kyuquot, and the
friends, students & colleagues who have come &
counted otters, kelp, fish, and snails***





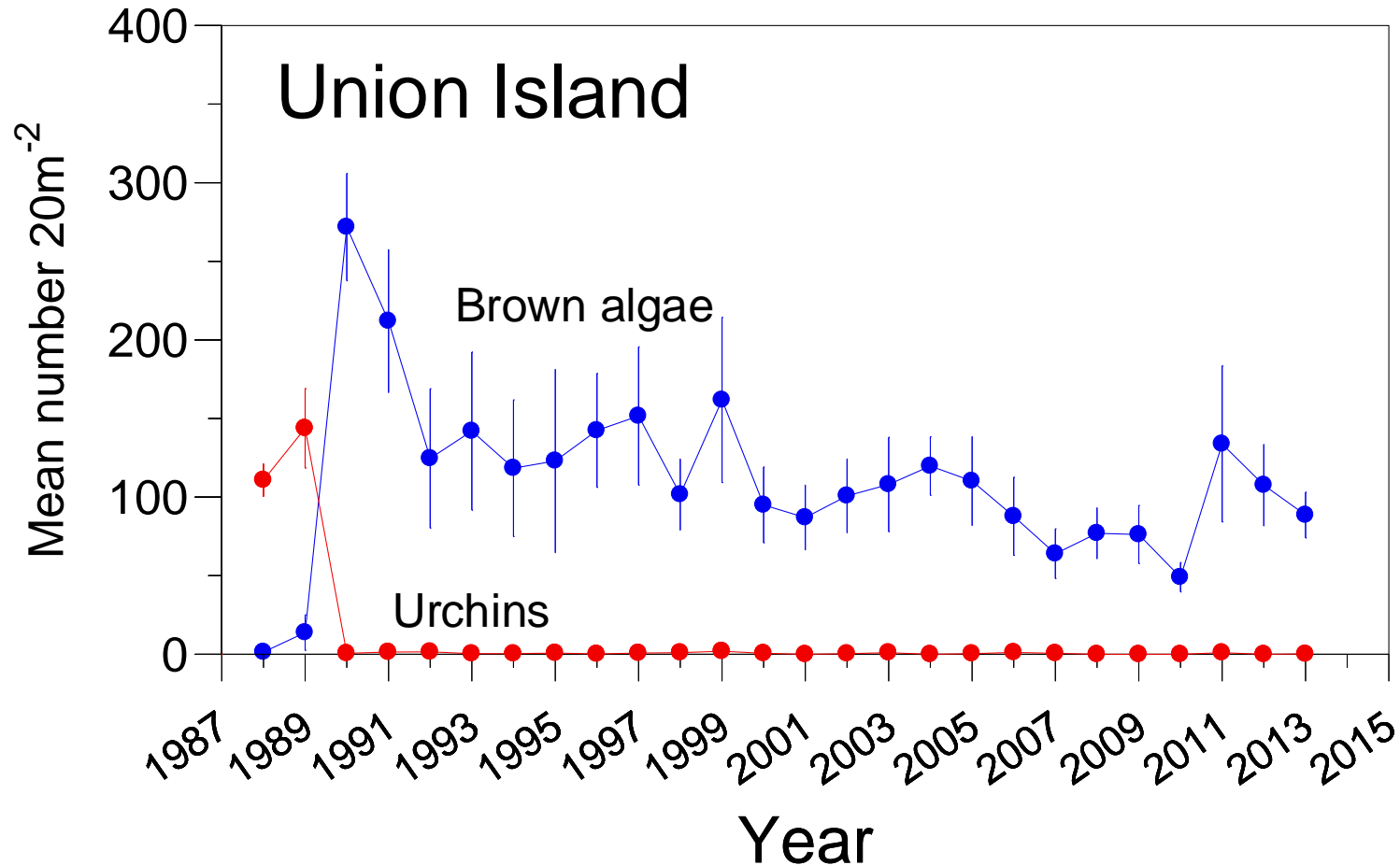




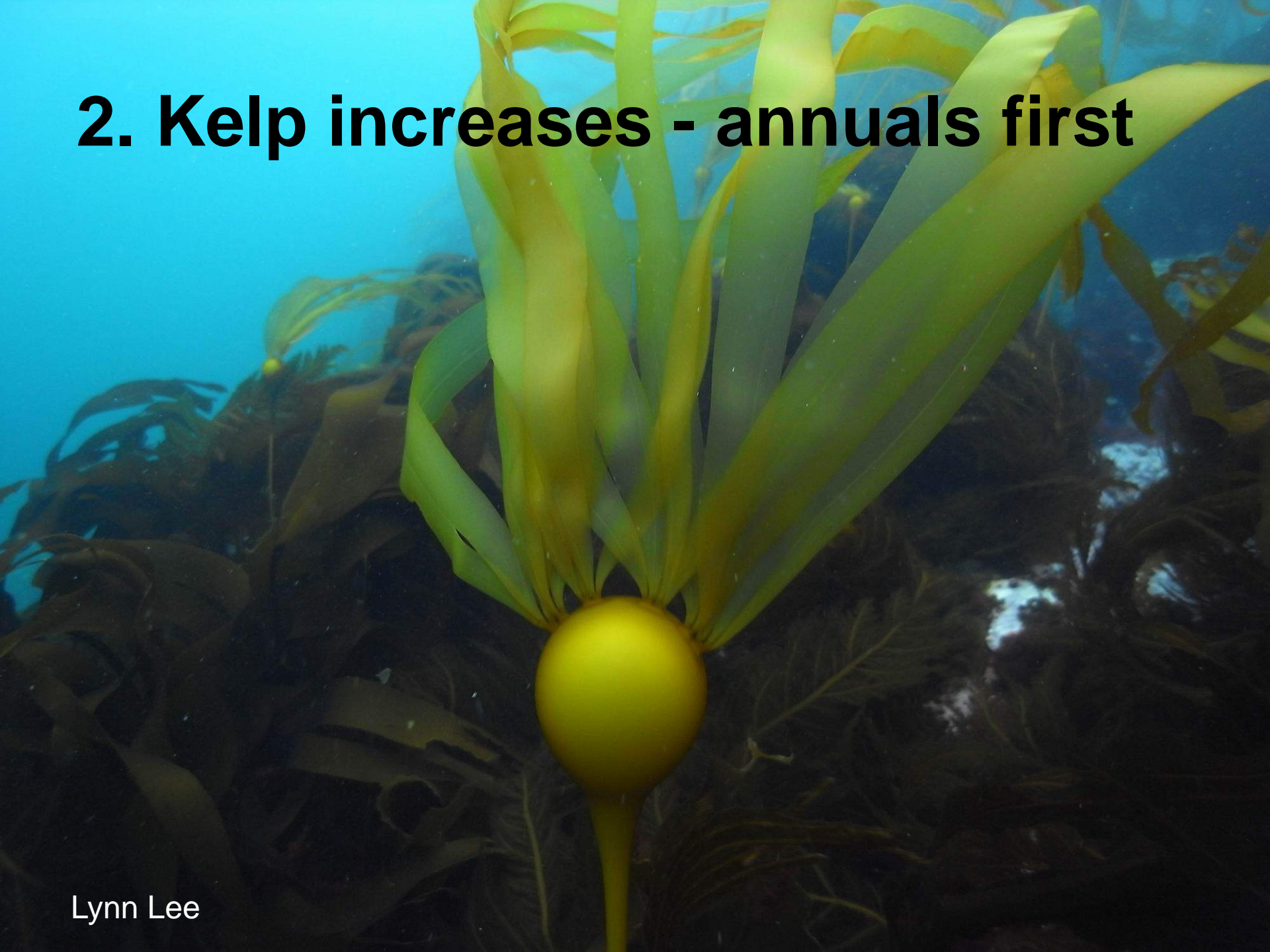
Lynn Lee



1. Changes can occur quickly....



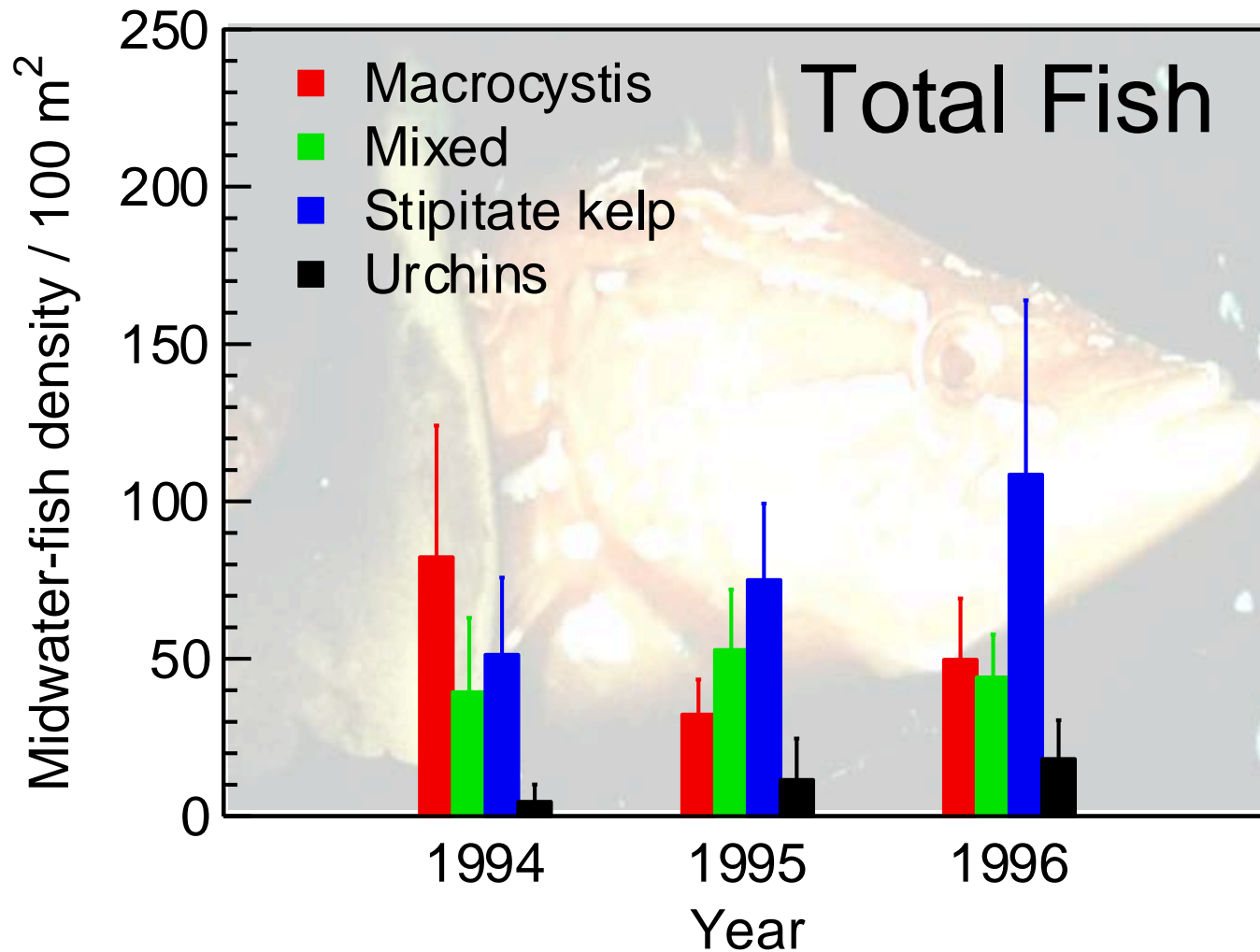
2. Kelp increases - annuals first



..and are replaced by long-lived kelp



3. Fish abundance increases....



Red Turban Snails

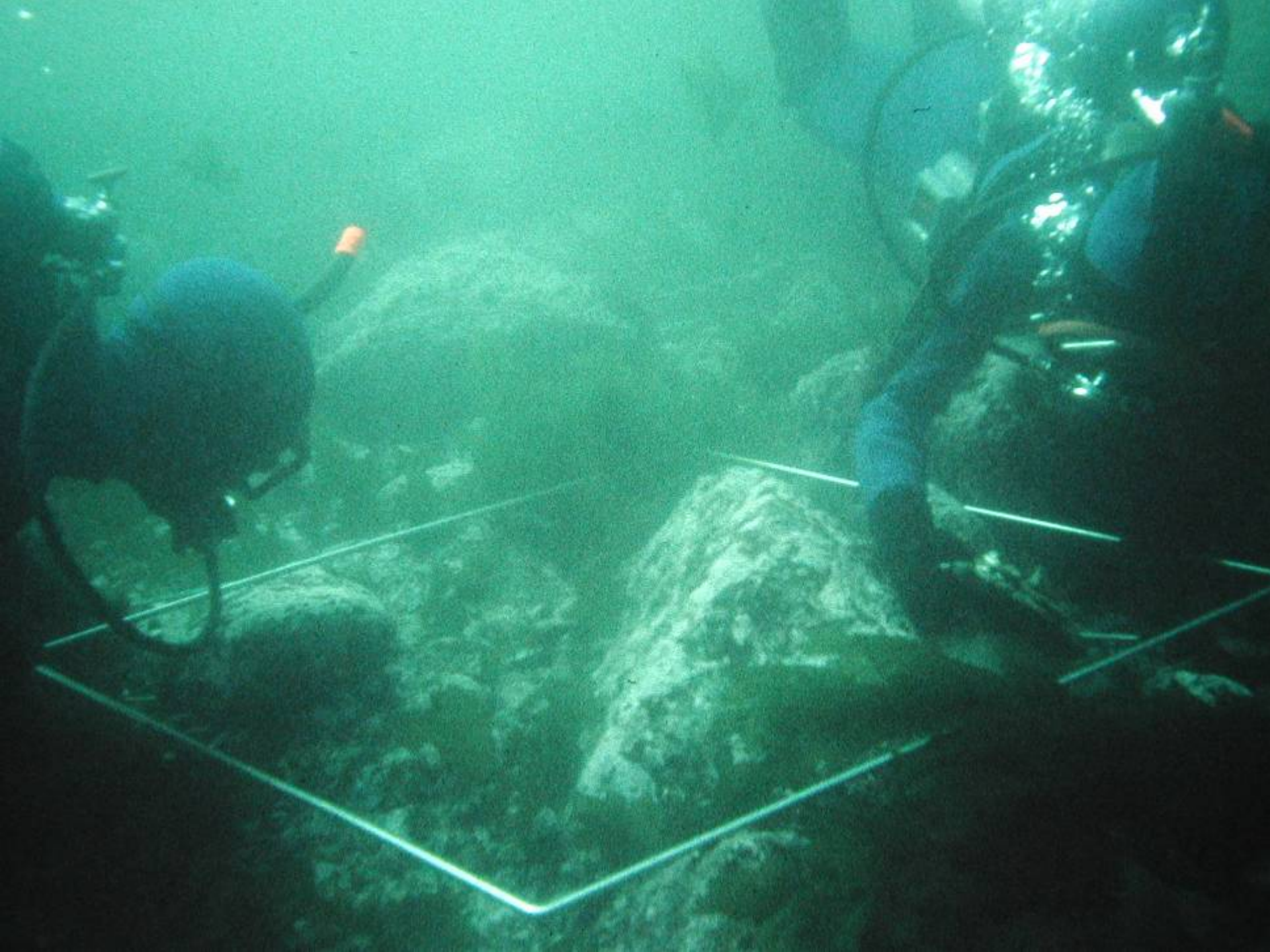




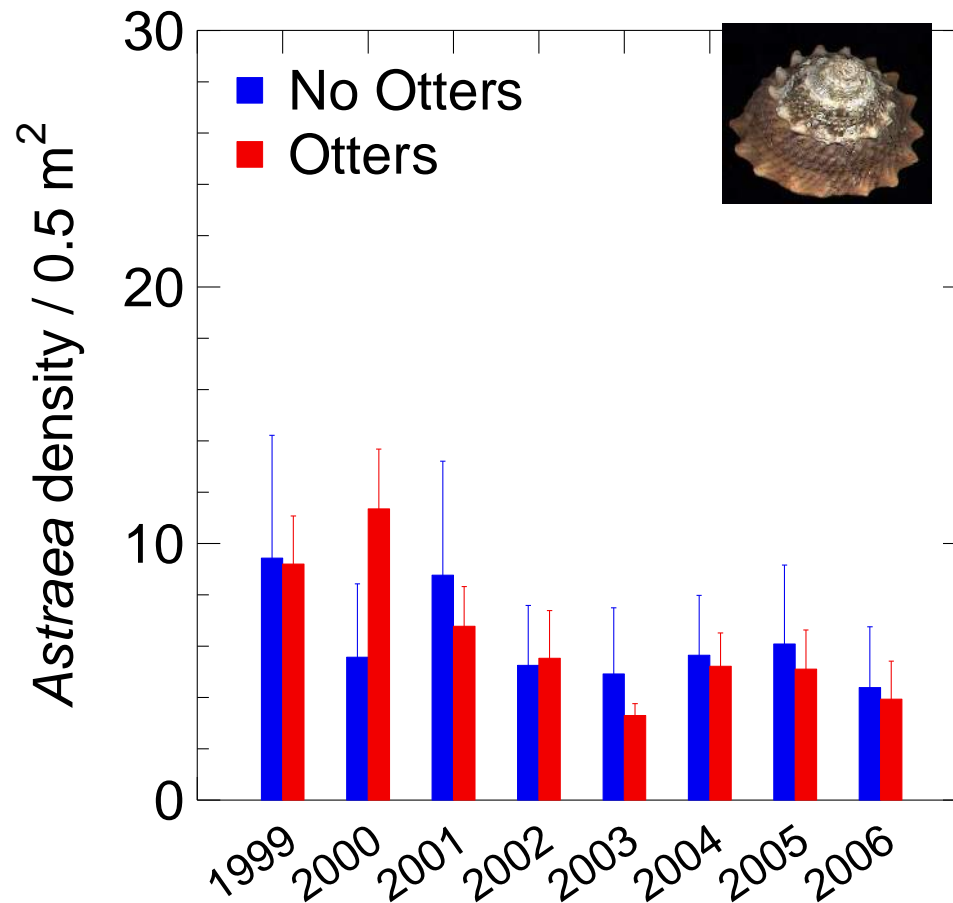
Smithsonian collections



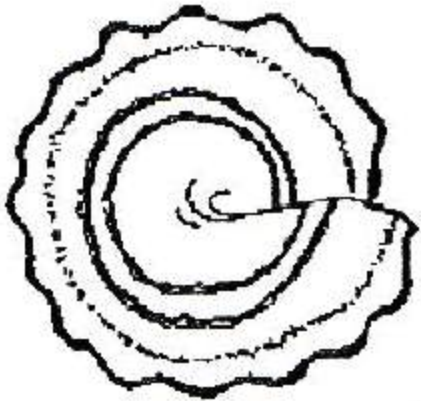
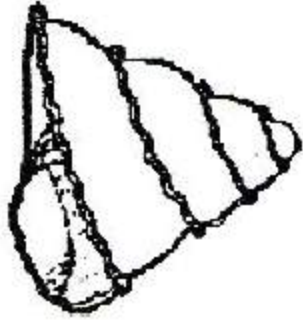
Erin Rechsteiner



Abundance



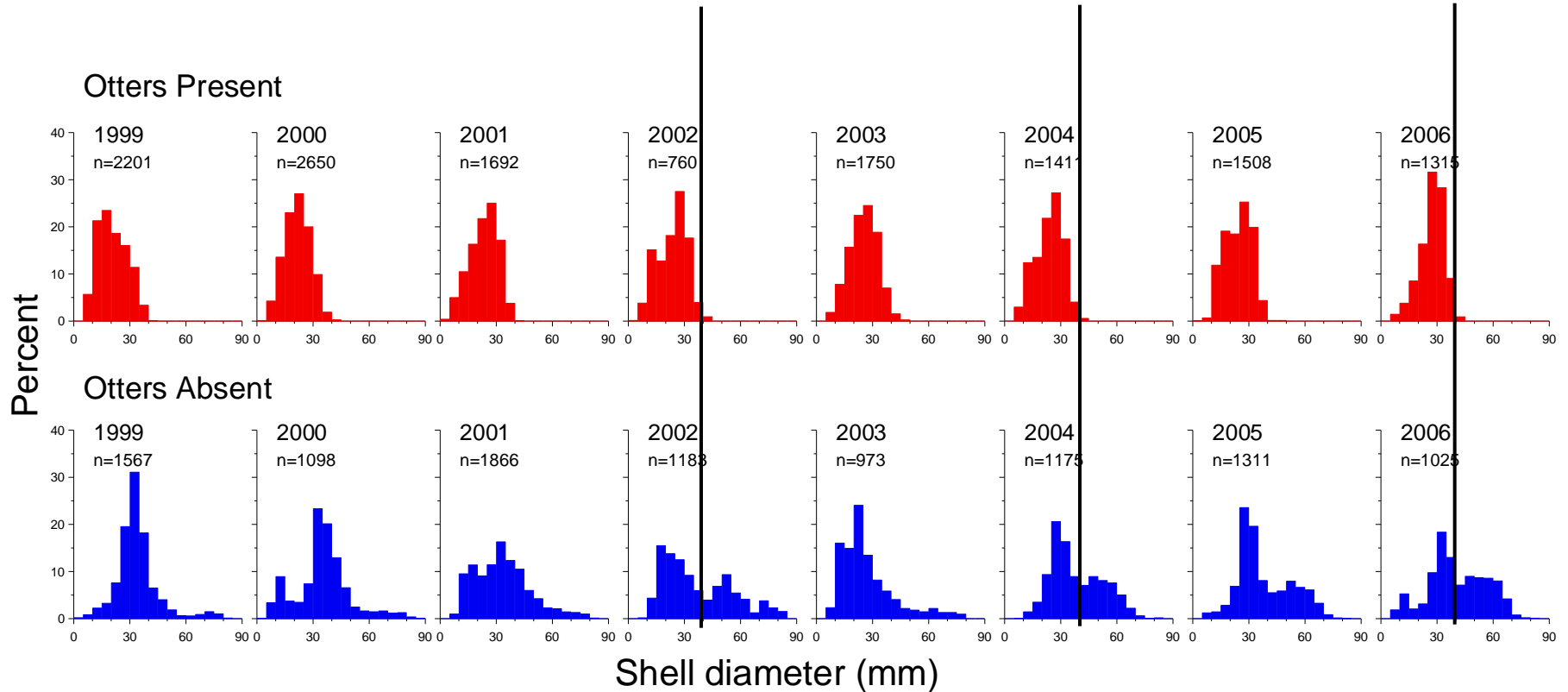
Snails density is the same in areas with and without otters is not different



**Basal Diameter
(Size)**



Size



Snails are smaller in areas with sea otters

**If snails are equally
abundant in areas
with and without
sea otters....there
must be more small
snails in areas with
otters**



Otters eat big snails....



Erin Rechsteiner

.....but also eat crabs...



.....and crabs like small snails



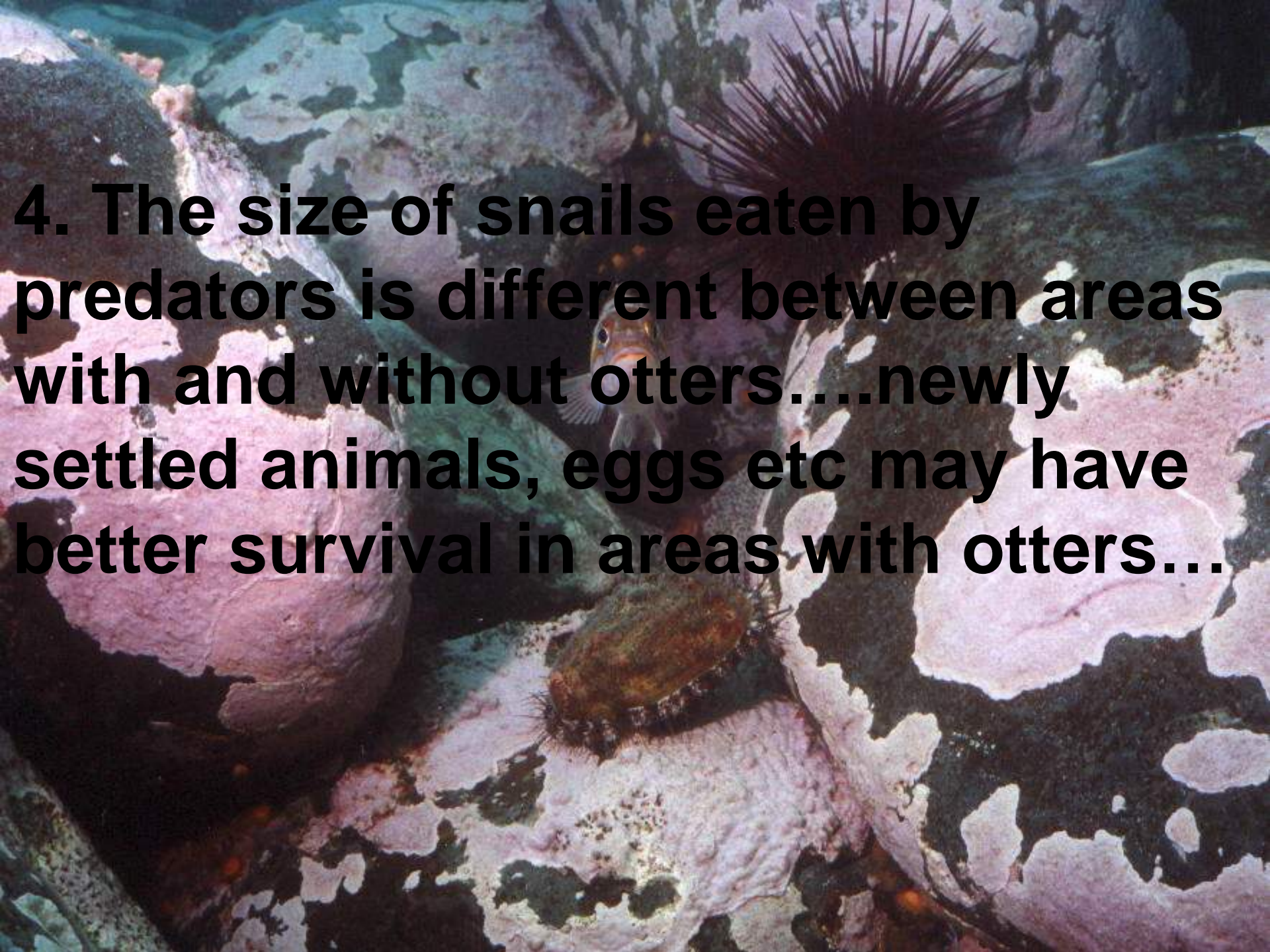


90 % (n =101)



89 % (n = 123)

4. The size of snails eaten by predators is different between areas with and without otters....newly settled animals, eggs etc may have better survival in areas with otters...



Sea otters.....

