

29-6-27-49 - 37-6-27-49 fine hair with wide but narrow plate.

38-6-27-49 42-6-27-49 Ibid.

43-6-27-49 70-6-27-49 Lepidochiton lineata

76-6-27-49 78-6-27-49 " " small in size

79-6-27-49 90-6-27-49 " "

Found Katharina tumida dominant form at tide level. Less affected by lack of water than Lepidochiton lineata preference of water. Mopalia muscosa greatest latitude of forms studied. would estimate M. muscosa  $\frac{1}{15}$  of K. tumida population. K. tumida has preference for cracks, and under rocks or ledges. Lepidochiton lineata common under rocks in tidepools in which conditions are similar to subtidal zones. Many large forms. It is possible that the younger forms are found at deeper levels. Several specimens of undetermined species found in association with Lepidochiton lineata.

June 28

Lopez Island, San Juan County, Washington. Class trip to south end of Lopez Island. Channel between Turn Lock and Turn Island among kelp.

First dredge at 30 fathoms half way between Long Island and Richardson City on the Lopez Island as follows:

Nyrodo, tumida, Bryozoa, Balanus nebulosus, Balanus (smooth types) and Balanus carinatus, 4 Strongylocentrotus franciscanus.

2nd Dredging  $\frac{1}{2}$  mi S. Richardson at 10:00 A.M. for 20 minutes.

egg case of Kuneria, 20 ray starfish, Banksia, Argobuccinum oregonensis, Calliostoma, Pagurus, Polydora, Pecten hearseus, Strongylocentrotus drobauschkei, egg case of skate (S.) Stictepis, Limpets, razor clam, Anacardium, S. franciscanus, Podgermus, Chironia egg case, Pholis lammarum, Praster longipes. Calliphys and Cyphochora constitute 80% of mass. shrimp, isopods, Yoldia and several small Lepidochiton lineata approx 6 mm & less in length. It would appear that these small ones are found at greater depths and then move into the intertidal-subtidal zone of contact, Cancer oregonensis, Petaluthea ereomerus, Scyrrantiformis (Kelp Crab), Nyctalus.

Pugetia gracilis, Chorella longipes,

3rd dredge at 10:45 A.M. at 6 fathoms at McKay Harbor. Laminaria on dredge mouth.

Cancer oregonensis. Sluggish like fish near Cathedral.  
Pugetia oregonensis  
Cancer productus  
Polychaetes  
Cancer magister