

generally under water. They are only ⁴⁹⁰⁷⁰²⁻²⁵ occasionally taken above the water level. *Mopalia ciliata* ^{legnata} were typically under rock forms. *Lepidochiton raymondi* also takes this position. no *Crytochiton stelleri* found in these tide pools but is no doubt represent in the deeper waters below low tide. Three species of scoters were observed to be continually feeding over algae beds directly south of the barrier reef. at high tide these birds may move northward to a point above the eel grass but uncommonly beyond they are. *Oedemia americana*, *melanitta deglandii*, *melanitta perspicillata*. Adult *Larus glaucescens* fed at help zone and above submerged algae area by eating what appeared to be small fish. They follow the Baird Cormorants and eat fish and invertebrate as they are disturbed by the diving Cormorants.

July 2

Oceanographic Laboratory, Friday Harbor, Wash.

Determined layer sequence for transect problem as follows.

| | | |
|---------------------|--------------------------------------|--------------------------|
| $\frac{1}{1000}$ | cu meter = 1,000 sq cm (10 sq meter) | x 0 cm = surface ① |
| $\frac{1}{500}$ | " " " " " " " " | x 2 cm = 2 cm depth ② |
| $\frac{1}{250}$ | " " " " " " " " | x 4 cm = 4 cm depth ③ |
| $\frac{1}{125}$ | " " " " " " " " | x 8 cm = 8 cm depth ④ |
| $\frac{1}{62.5}$ | " " " " " " " " | x 16 cm = 16 cm depth ⑤ |
| $\frac{1}{31.25}$ | " " " " " " " " | x 32 cm = 32 cm depth |
| $\frac{1}{15.625}$ | " " " " " " " " | x 64 cm = 64 cm depth |
| $\frac{1}{7.8125}$ | " " " " " " " " | x 128 cm = 128 cm depth. |
| $\frac{1}{3.90625}$ | " " " " " " " " | x 256 cm = 256 cm depth. |

July 5

False Bay, San Juan Island, San Juan County, Washington.

Collected series of Chitons from some tide pool all all previous collections. This tide pool is approx 15 x 10 meters and 1 meter deep in deepest part. at near high tide the water enters the pool. During the low period it is quiet and slightly warmer in temperature. The following chitons were taken from beneath the boulders in the pool.

1-7-5-49 to 11-7-5-49 *Lepidochiton raymondi*.

12-7-5-49 *Mopalia lignosa*. Screened sands and muds 10 feet from shore line and found numerous *Arenicola* at about 50 m.m to 150 m.m. deep generally resting on clay. Sent 13-7-5-49 *Leptosynapta* taken at 1050 stake in False Bay for identification.

Minnesota Reef, San Juan Island, San Juan County, Washington

Class group collected from outer island approx 100 meters S.E. of the reef. This area has proven to be the most prolific of the various collecting stations, as apply to Chitons. This may be due to the actual topography, or to the embayment of partially protected position and the constant source of detritus supplied by the main reef to the west. This general circulation of water