

at one moment in the series it rained as a slight shower for a moment and this rain & salt water spray from the water was wiped off the lens with my dry shirt sleeve. The cleaning of the lens looked good but moments later I noticed that the lens was smeared with an opaque film and some photos show the effects of the film surface. One should always carry special wiping material when lens get wet, especially with salt water.

Birds observed along jetty are: black turnstone 3 pairs, wandering tattler, one bird; Forrester tern, several dozens; northern phalarope, 6 groups 4-8 birds feeding on smooth surface of water before breaking into crest, pelagic cormorant, common loon and 18 gulls, the latter resting on most westerly extension of the jetty.

Left breakwater and made photo 810515-26 of bay at the eastern end of breakwater between the breakwater and the cliffs beyond. This bay has been invaded with logs and debris that was relatively free of logs a few years ago. See photo 620818-11 taken of this same bay on Aug 8, 1962. The breakwater is an excellent place to photograph wave action especially at outer end of jetty. It would be dangerous to venture out to end during high wave action as the log might wash away as it has in places on the south side of the mouth of the Columbia River. Also there are kinds of birds that are not commonly seen near shore. At 11:16 A.M. left mouth Columbia River ^{at 33924.7} and visited lighthouse on top of cliffs. Informants at Camby State Park say that the leaflike organism (like scales of fish) are Japanese sail fish. These scalelike organisms cover the beaches at certain tide levels and make walking slippery. Three weeks ago there was an influx of these organisms and also the last two days of today. Continued E.

Redtail hawk near the Chinook River. Crossed bridge and at Astoria at 947.0 ^{810515-27.4} with ⁸¹⁰⁵¹⁵⁻²⁸ with ^{968.9} measured a Sitka spruce which is supposed to be the largest in world and saved by lumber interests. Circumference 52'-6", 216' high. Crown spread 93'. This tree is 700 years old and represents 65,000 board feet of lumber. Also a Douglas fir which blew down during a dry storm in 1962 measured 48' 8" circumference, 200' 6" high and is 900 years old.