

UNITED STATES.

The region about Umatilla is a rolling prairie. The banks of the Columbia River are sandy and gravelly. The Umatilla River is small and empties into the Columbia. About its mouth is an estuary with a soft mud bottom and with from 2 to 3 feet depth of water. The mud and some waterweeds usually filled the net so that it was difficult to pick out the fish, especially as it was necessary to collect after dark. The most important discovery of the season was made at this point. *Columbia transmontana* shows in a striking way the modification of the fins of the Pacific slope fishes. In this case it has found expression in the strong spines at the origin of the anal and the dorsal fins.

The Grand Ronde River is a tributary of the Snake. At La Grande it is a small stream with a few deep holes. It is dammed near the town for milling purposes, and full of angular pieces of lava, and seining is almost impossible. Below the dam large numbers of *Ammocetes* were found dead.

About Caldwell the country is a level plateau, treeless except along the river bank. The Boise River, which is a swift stream about 100 feet or less in width, is dammed at various places to divert the water into irrigating ditches. There are level stretches in the river, alternating with swift riffles.

At Idaho Falls the Snake River has worn a narrow gorge through the lava, and a fierce torrent in which seining was out of the question. Fortunately a small stream has been diverted for a mill, and in this I obtained probably a complete series of the fishes of this region. The country is still a level valley with mountain ranges at distance on either side.

Soon after leaving Idaho Falls the continental divide is crossed. The first station at which I made collections was Craig, Mont., on the Missouri. This river is here about 150 feet wide, a clear, cold, rapid stream with gravel bottom and full of *Corygonus williamsoni* and *Platyphobio gracilis*. Fishing was confined chiefly to the slough formed at the mouth of a small creek entering from the eastern side.

At Poplar the Missouri is a swift, muddy stream, probably 200 yards or more wide. Poplar River is also muddy and partakes of the nature of the prairie streams near Winnipeg; that is, its banks are composed of soft mud. It seemed nowhere over 4 feet deep, and in many places it was only a foot deep.