

ward the head of  
appears for the  
l is increasingly  
of the southward-  
s (*Philadelphus*  
lake, growing in  
th of June.

st Arm of Koo-  
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Slocan River is  
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swift and there  
curs at about a

mile above Ward's. The river is here divided into two channels, the water on one side falling vertically a distance of about thirty feet, on the other coming down a steep chute with great velocity. These are known as St. Agnes Falls, and they limit the ascent of the salmon on the Kootanie. The falls were formerly a noted salmon-fishing place for the Salish Indians and the limit of these people to the east, the country beyond belonging to the Kootanie tribes. The fall on the north side is a very picturesque and striking feature, its beauty being enhanced by the clear, blue colour of the water. Fine trout may be taken in the basin below it, in almost unlimited quantity at certain seasons. Within a couple of miles above the falls, two other notable falls occur, named the Pillar and Geyser Falls respectively, and between the highest of those and the end of the West Arm the river forms several strong rapids.

Between Ward's Ferry and Nelson several streams enter the Kootanie from the Toad Mountain range on the south. These are known as Rover, Forty-nine, Eagle and Sandy creeks, and just before reaching Nelson Cottonwood-Smith Creek is crossed. This is larger than any of those first mentioned, and flows from a deep valley which bounds Toad Mountain on the east and runs through to the head waters of Salmon River. Several small streams enter the Kootanie from the north in this part of its course, the most important, with a valley about nine miles in length, coming in just at the head of the river.\*

Whatever may have been the origin of the transverse valley which now serves as the outlet of Kootanie Lake to the Columbia, it is evident, speaking of that portion of it now occupied by the river, that its rocky bed is little if at all below the present level of erosion. This is particularly apparent on the lower part of the river, about the falls, and again near the outflow of the river from the lake, where the banks of the river are frequently formed of solid rock. Had the valley been much deeper than it now is and filled only with drift deposits due to the glacial period, the difference of level between the Columbia and Kootanie Lakes (amounting to 356 feet†) would long since have enabled the river to cut down its bed to such an extent as to drain much of the Kootanie Lake.

Though entirely unsuited for navigation by reason of its rapids and falls, this part of the Kootanie is capable of affording, at the falls, an almost unlimited amount of water-power for milling or other purposes. The quantity of arable land contained in the valley is inconsiderable,

Eastern limit  
of Salish  
Indians.

Tributary  
streams.

Valley not  
deeply filled  
with drift.

Water-power.

\* By meridian altitude of sun, the latitude of observation, point on lake-shore in front of Nelson is  $49^{\circ} 29' 54''$ .

† According to levelling by C. P. R. Survey, kindly communicated by Mr. H. Abbott.