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BEST TROUT STREAM

The Deschutes or "River of the Falls" is perhaps the best and most important trout stream in Oregon. From the standpoint of keeping this as a record angling stream, experts claim it should never be stocked with any species except those native to the river.

The natural spawning conditions are excellent because the river does not carry any large amount of silt at any season of the year so as to cover up and destroy the fish eggs.

The law passed by the legislature in 1911 provided that no sewage or any polluting matter could be discharged into the river to make the water unfit for drinking purposes, and the law has been observed.

The present conditions are such that a large amount of aquatic insect life up and down the course of this river furnishes a bountiful food supply for trout. Stoneflies, mayflies, caddis flies and others are exceedingly plentiful. The cycle of life of these insects is that they lay their eggs in the water and where<sup>n</sup> these hatch, ~~and~~ the pupa or nymph develops under the surface to the winged stage. These nymphs cannot live in water that is polluted or of low oxygen content. In other words, the insects upon which trout feed cannot live in polluted waters. <sup>this insect</sup> and Without food, ~~so~~ the trout are exterminated.

Another reason why the Deschutes is such a splendid trout stream is that its course is not bordered by a paved highway and ~~so~~ is not visited by so many anglers.



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## TROUT SURVEYS

The work of most importance to anglers and those interested in game fish was started about two years ago by the entomologists of the Experiment Station of the Oregon State Agricultural College cooperating with the State Game Commission. A preliminary survey of the food for Oregon trout has been published by R. E. Dimick and Don C. Mote.

Trout cannot live where the cupboard is bare anymore than people can. A glance at a stream or a river tells nothing of the trout population. It takes an expert to discover whether the pastures below the surface abound in food, and it can't be measured as you measure the grass supply on a hillside.

The reason for this is that no one can see at a glance whether or not water insects that live under the rocks and around the crevices of boulders are abundant. There are many species. Nor can one tell whether the water conditions are favorable to produce insects. The temperature and oxygen content must be adequate.

Fish do not live out in the open where they can be observed. It's an involved problem to know why a cutthroat thrives best in one stream and a rainbow better in another, why some waters produce fish and others are barren, why it is better to propagate and release the fish native to the stream rather than introduce ~~some~~ foreign species.

During the past six years, according to the reports of the State Game Commission, 122,038,467 game fish have been liberated in the streams of the state at a cost of \$761,602.86.



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Any scientist knows that the results obtained from the above figures are largely guesswork. To date there has been very little basic scientific knowledge of how and where to plant the streams of the State in order to reap a successful harvest. The State

One angler says trout are abundant, another that the numbers of fish are holding even, and a third that the finny tribe are decreasing. Does any one really know the truth? The State Game Commission can greatly profit by using the young scientists trained by the State College to work on these problems. When over a hundred thousand dollars are spent annually to propagate and liberate trout in Oregon streams, the State should have proof that the funds spent produce a profit or know the reasons for failure so present methods can be corrected.