

THE USE OF GASOLINE IN THE TREATMENT OF FIN TROUBLE AMONG BROOK TROUT.

By R. L. RIPPLE.

During the month of April at the Bayfield Hatchery, there developed a certain fin trouble or disease among several thousand of our brook trout yearlings, a disease with which all fish culturists have come in contact with more or less. The quarters and conditions under which these particular trout were kept and had wintered were ideal, except that the space was somewhat limited and perhaps a little crowded. This fin trouble or disease, if it should be called such, was, in my opinion, caused in some way owing to said close quarters. Many thousands of trout of same age and size, from same eggs and stock fish, were wintered in the same water conditions, but with more ample space and with no bad results, and are a grand lot of trout at this time. When this fin trouble was first noticed, the very tips of the different fins, and tail as well, were slightly frayed, reddish in color and inflamed, the dorsal fin being in all cases more badly affected as the trouble advanced. The trout, although in the above sore condition, never failed to eat and eat well up to the time they fell off and died. As stated above, the disease advanced more rapidly on the dorsal fin and when this fin became affected down to the body of the fish, that trout died. The strongest trout among this affected bunch seemed to throw off the disease and become little the worse for it, except that the dorsal fin would heal over and become only a short stub, the same being true also with other fins and tail. At the first realization of this trouble, I removed and started cleaning up all the affected fish by salt brining and changing quarters, but I soon found that the old method of salting trout was of no avail in this instance, but only hastened their death by keeping the soreness inflamed.

I had removed 500 or 600 of the very worst affected trout to one of the hatchery tanks to prove to myself whether or not the salting operations were really of no avail. Here the water could be drawn down at will and different amounts of water and salt brine strength were tried, but the trout fell off very rapidly. The disease had advanced at that time beyond where any salting or cleaning up by that method, either in weak or strong solution, would do any good. Several other things were tried and still the trout died. Any one who loves his work and that which falls under his personal care, as most hatchery men do, can appreciate the fact that there was nothing left undone in trying to save my little bunch of "speckled beauties." Commissioner Nevin visited the hatchery on Sunday at the

time the disease was at its worst, and mentioned for me to try gasoline and kerosene on the fish, and see what effect that would have upon them.

The next day my good neighbor, Mr. Nourse, called me up saying that he wanted me to come over and help him make up a small crowd for an hour at his farm adjoining the hatchery, as one of University of Wisconsin men was to give a talk on the Diseases and Care of Sheep. I want to say here that I never will be sorry because of the one and one-half hours put in at that talk. The gentleman described the different diseases of sheep and finally came to stomach trouble and stomach worms and stated in his remarks that 2 spoonfuls of gasoline to 3 ounces of fresh cows' milk would cure and rid the sheep of worms. In my desperation in trying to do for my bunch of trout, I thought if gasoline had a killing effect on the stomach worms in sheep, why not might its uses be applied to this fin disease of my trout, as I had, of course, supposed that the fin trouble was a germ or parasite of some kind. It did not take me long to collect a half dozen of my worst affected yearling trout and place them in a quart of pure gasoline. In one minute by the watch all were quiet; the struggling of the trout was over; two more minutes elapsed, at which time they were removed to a vat of running water. After watching them several minutes without a quiver anywhere, feeling sorry, giving them up as dead and intending trying another lot for a shorter period of time in the gasoline, I was called out on the pounds. In about 15 minutes upon my return to the hatchery, I discovered my treated trout swimming about gaily. To test their welfare, I gave them some nice fresh liver to humbly atone for the trick I had served them. To my surprise they took food readily. To my further surprise, as I happened to glance into the gasoline measure in which they had been treated, I found that the gasoline was of dirty brownish color and jelly-like, and this proved to me that something had come off those trout.

The treated fish fairly glistened in coloring, they were so clean. The frayed fins turned whitish color at the diseased ends. It was not long before I treated quite a number in like manner, and kept two tanks going, one with the gasoline treated fish, and the other tank containing the salt brined trout. There was a loss in both tanks, but much greater by far in the salted tank. As I was treating my worst cases in both instances, there was bound to be a death loss among the gasoline treated trout from those fish that were beyond any hope anyway.

My experiments told me as far as I carried them that there is something to gasoline in the treatment and cleaning up of trout that should be carried out in a more scientific manner. Three minutes is the limit of time which brook trout will stand the clear gasoline, and revive in running water. The final loss of this bunch of trout was about one-half. Of those treated with gasoline, many were no doubt beyond any help at that time.

Without more positive proof on my part, owing to absence of strong magnifying glasses, and proper amount of time to devote to the work, and the advanced stage of the disease when the gasoline treatment was begun, I cannot state just what results were obtained. At any rate, here is something worth further consideration in the cleaning up of trout, and in the treatment of fin trouble herein referred to, especially if started when the fin trouble is in the first stages.



WHITE BASS TAKEN FROM THE WOLF RIVER, WISCONSIN

I cannot help but think what a great means this gasoline treatment might become if properly applied in the case of the common fish louse or copepod, which attaches itself to the gills of the brook trout, as many of you know. If only to destroy the two protruding egg sacs of this eventually death dealing parasite, that alone would pay well for an occasional gasoline bath among affected brook trout. Thousands of brook trout of any size may be treated in a few gallons of gasoline by holding them in it with scap nets.