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## INSTITUTE FOR FISHERIES RESEARCH

UNIVERSITY MUSEUMS

## UNIVERSITY OF MICHIGAN ANN ARBOR, MICHIGAN

September 12, 1933

Report 227

MEMORANDUM ON PROPOSED DISTRIBUTION OF MONTANA GRAYLING

Our ideas on this subject coincide well with those given in the memorandum received from the Fish Division dated September 9.

It would seem the best bet to plant these fish where the original grayling survived best.

It certainly would be undesirable to scatter the plantings so widely that follow-up would be difficult. Furthermore, considerable population of fingerlings in a few localities would stand better chance of yielding some spawners than would a scarce population in a wider territory. On the other hand the eggs should not all be carried in one basket. Considering the number of fish on hand, a half-dozen planting spots would seem proper.

It seems to be out of season to try to find really suitable grayling streams now devoid of brook trout. It would however be very advantageous to put a considerable number of the fingerlings in suitable waters between screens, so as to eliminate trout competition and reduce illegal catching, at least for another season. Some places seemingly suitable for such retention are:

- (1) Pond on Mr. Greenway's hatchery at Williamsburg, as mentioned by Mr. Cook.
  - (2) Smith's pond on the Au Sable. X
- (3) Two state rearing stations. If means were available to operate X one of the now abandoned stations for grayling, such as the Jordan River station, that would be a fine thing to do. If this can not be done, perhaps

one or two ponds or races at a couple of the stations being operated.could be spared for this important trial.

True, further holding of the fish involves dangers, but so does fingerling planting. Our suggestion is to play safer by planting about one-third of the fish this fall, one-third next spring, and one-third as still older fish.

## Pine River and Manistee River Plantings

We believe that we do not have any information as to former occurence, of either geographical or habitat nature, which would materially supplement that which the Department has. Pine River at the points mentioned seem reasonable selections. The Kalkaska County plantings (Manistee and tributaries) seem well chosen also. For the plantings about Sharon we would suggest that the fingerlings be put into the North Branch, Big Cannon Creek and Devil Creek, with the idea that many will work down into the river, rather than putting all into the river in the expectation that some would make way upstream into the creeks. We are fairly familiar with Goose Creek, recommended by Mr. Mickelson. We do not believe the upper section (first two miles) suitable for the trial, as this is essentially a small, open minnow brook. Much spring water is picked up about a mile above the county line bridge, and it is in that region where we recommend plantings. At and below the bridge adult brook trout are abundant. One can get in somewhere near the line between Sections 1 and 12 (T. 21 N., R. 5 W.) to a point where the stream has fair cover, good shade and is generally rather wide and shallow. We have had such situations described to us as favorite habitats for the grayling, and recommend that spot for a planting.

## Au Sable River Plantings

We agree that the Au Sable system is a favorable selection, but that picking out actual sites for planting involves difficulties and guess work.

The only definite suggestion we have heard is for "Gammy Creek", submitted by Carl P. Mickelson. This little creek, as shown on the L.E.S. map is  $2\frac{1}{2}$  miles long and runs parallel with the Oscoda County line, enterring the main stream opposite "Red Heads". The L.E.S. card gives the following data for point of examination about  $\frac{1}{4}$  miles above mouth:

Water Supply: seepage Country: swamp

Degree Flooded: moderate Av. Wdth.: 6 ft.

Water: clear Depth: 1 ft.

Bottom: sand-gravel Temp.: Air 650, water 480

Shore: brushy Current: rapid

The card gives the name as Grammey Creek, probably by error. Langlois spelled it Gamey Creek, and indicated brook trout plantings in both sections (12 and 13).

It doesn't appear to us that this little brook is particularly well suited for a trial planting.

I can think of no better appearing situation in Crawford County than the East Fork of the "Main Stream", in T. 28 N., R. 4 W., sections 12, 11 and 14. Here the stream is rather wide and shallow; sandy with a great quantity of logs and brush; sufficiently cold; with good insect food and lots of muddlers, but no great trout population, still restricted we suppose to brook trout. The lakes above and the dam below (Hansen Dam) would tend to keep the fish "put". Planting here would probably require a half mile haul across the M.C. tracks, but that would seem to be of minor consequence compared with giving the fish a "break".

The South Branch near Smith's Bridge and the main stream in Ranges 1 to 3 W. are rather heavily "infested" with big browns, and therefore would seem to involve danger.

We can think of no streams in Oscoda County or below which would seem as favorable as the upper Main Stream.

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