

Report 257

October 1, 1934

PRELIMINARY REPORT ON THE RESULTS OF THE FORAGE FISH EXPERIMENTS
AT SCHUIL ACRES, 1934

On September 28, Mr. M. B. Trautman, Mr. J. Leonard and the writer observed the minnow experiments at "Schuil Acres", Grand Rapids. The results of the experiments are very gratifying. Both Mr. Trautman and I were very favorably impressed by the suitability of "Schuil Acres" as an experimental station, in view of the good results which have been obtained this year.

The red-bellied dace, Chrosomus eos, in pond 7 show a large production. Apparently at least two generations of this species have been produced during this one season: the original brood stock, placed in the pond at the beginning of the summer, spawned and, according to Mr. Schuil, then died off; their progeny grew to maturity during the summer and have perhaps produced a second generation which is now very small (this point needs verification). The experiment with this species, the first that we have observed, indicates that this fish is prolific, a good pond species, and worthy of further investigation.

There has been a large production of both blunt-nosed minnows and golden shiners and a fair production of the killifish Fundulus diaphanus menona, in their respective ponds. Various types of spawning devices were installed in the blunt-nosed minnow pond, and our data on the selectivity of this species for certain types of objects will be of some practical value, especially in design of spawning devices in our natural waters, in connection with lake improvement.

As far as this season is concerned, the experiments at Schuil Acres will be

concluded by November first. There would be no particular value in continuing the experiments longer. If the Schuil Acres establishment is given up by the Department, and if the Institute can obtain the use of one or more ponds at one of the state hatcheries (Drayton Plains would be most convenient), the brood stock of minnows could be transferred this fall, in preparation for further experiments next year. All or part of the minnow stock could perhaps be taken to the Lydell hatchery for (1) holding a stock of certain species for further experiments, (2) experimental plantings, (3) bass food.

Dr. Hubbs or Mr. Trautman would like to discuss the problem of when^{re} the experiments can be conducted next year. It is expected that I can be on the ground through the summer. An experimental station near Ann Arbor would be ideal (as has previously been mentioned), but we assume funds will not be obtainable at present for a new establishment. Possibly some of the work may be done at Northville. Inquiries in that direction will be made in the near future. In the meantime we suggest that some consideration be given to the possibility of doing this work at one of the state hatcheries, as near as possible to Ann Arbor. Several rather shallow ponds of 1/8 to 1/4 acre and a few smaller ones would be ideal, but the experiments can be modified to correspond with the facilities which are available.

During our visit, Mrs. Schuil stated that Mr. Schuil had submitted a partial report on the work at the station this summer. We would appreciate a copy of this report, as it would aid us in interpreting the results of the summer's work.

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