

It is evident then, that any method of raising this deep sea salmon population above the economic mean of ten per acre (number here arbitrarily assumed) will be wasted energy and expense unless the enemies at this critical time can be controlled. If, as seems likely, the deep sea condition is the controlling element in the life of the salmon, increasing the number of fry, feeding parr or destroying fresh water enemies will have little if any effect on ultimate numbers.

Protection at other times will no more increase the number of mature salmon than enlarging two ends of a pipe, while leaving a constricted length in the middle, will increase its flow capacity.

In conclusion it may be said that

I. The total effect of bird enemies upon salmon is small, if any.

II. Hatcheries and fry planting will compensate for the toll of mature fish taken by man.

III. The number of smolt that go to sea is dependent upon the food supply in the streams.

IV. The number of returning salmon is governed by the extent of their deep sea habitat and the number of enemies there.

V. While planting may return an exhausted stream to its normal capacity, the number of fish cannot be indefinitely increased without a readjustment of other critical conditions.

VI. Eliminating the question of poaching, stream defilement, and other abnormal conditions the problem of increasing the salmon run in the rivers, above the natural capacity of the streams, lies between increasing the parr food in them or reducing the enemies of the salmon in the deep sea habitat.