BULLETIN OF THE UNITED STATES FISH COMMISSION. 65

Vol. VII, No. 5. Washington, D. C. June 30, 1887.

91.-BEST SEASON FOR PACKING SALMON ON THE PACIFIC COAST.*

By LIVINGSTON STONE.

There can be no question about the flesh of the California salmon (Oncorhynchus quinnat) being better for canning in the spring than in the fall. It is incomparably better. It is so much better that it has always been universally admitted to be so, and I have never heard a doubt expressed about it before. In the spring the salmon are wellfed, plump, handsome, fat, silvery fish, covered with bright and hard scales. In the fall they are, at the best, thin, slab-sided, with nothing in their stomachs; their silvery appearance is entirely gone, the fat has disappeared from their flesh, and they are covered with a slimy skin instead of hard scales. In the spring they are fresh from their feeding-grounds in the ocean, and are in as fine condition as a salmon can be. In the fall their stomachs have been empty, sometimes for weeks and months, and all this while their flesh has been deteriorating.

The difference between the flesh of the spring salmon and that of the fall salmon is the difference between the flesh of an animal in prime condition and one in an exhausted condition. The explanation of the difference is at the same time a proof of the existence of it, for the salmon spawn in the fall, and this sufficiently explains why they are not in good condition at that time, and is also unquestionable evidence that they are in poor condition. I have handled hundreds of thousands of salmon in the fall and am thoroughly familiar with them at that sea-

* This article was written as a response to the following letter of inquiry from Mr. F. N. Barrett, editor of the American Grocer, of New York, dated April 27, 1887, addressed to Prof. S. F. Baird, and by him referred to Mr. Stone:

"During the winter a very animated discussion was carried on among certain packers of salmon regarding the relative merits of spring and fall packed fish. It is claimed by some that fish packed in September or later are unfit for food. I have before me, from the Portland (Oreg.) News, of March 25, 1887, a statement from Mr. Samuel Elmore, of Astoria, Oreg., a salmon packer on Tillamook Bay and Siuslaw River, who says that fall salmon are a good and eatable article. He claims that salmon caught late in the fall are freely eaten in a fresh condition, and that if good in that way they are equally good for canning. It was claimed that salmon were caught and packed up to December 1, 1886, on Tillamook Bay, and that fish taken so late in the season are exhausted, sickly, and slimy. Others hold that if a salmon has strength enough to return from the spawning ground and seek the ocean, it is just as good for food as salmon taken and packed during April, May, June, or July. Can you give me the opinion of your expert regarding this question ? Is there any noticeable difference in the texture or flavor of fish taken during October, November, or December, as compared with those taken during May, June, or July? The opinions on this subject obtained from the salmon packers differ widely and are colored by interest, while the question is now one of great importance to the trade."

Bull. U. S. F. C., 87-5

66 BULLETIN OF THE UNITED STATES FISH COMMISSION.

son, and I am very much surprised that any question has ever been raised concerning the superiority of the spring salmon for canning.

The statement which has been made that the fall salmon is unfit for food is not, however, by any means true. The flesh of the salmon is entirely different at that season, and inferior; but if the fish is not too far spent, it is not unfit for food. Indeed, it makes, when very fresh and well cooked, a decidedly edible dish.

Many salmon, however, in the fall become blind and very much emaciated, lose much of their fins and tail, and become covered with white blotches of fungus, being altogether very repulsive in appearance. On the whole, I should say that fall salmon are fish that one should be very cautious about canning, as the flesh is inferior, spoils very soon, and might possibly be furnished by unscrupulous persons from fish too far gone to be wholesome.

On the other hand, I must say that the Indians eat the fall salmon even in their most advanced stages of emaciation and disease, and never seem to suffer any ill effects from it. Furthermore, there is a salmon or trout in the Columbia River called the "square-tailed salmon" (or "trout") (*Salmo truncatus* Suckley), which spawns in spring. This fish, of course, is in its best condition in fall and early winter, and there can consequently be no objection to its being canned at that time.

CHARLESTOWN, N. H., May 16, 1887.

22.—THE FISHERIES OF GLOUCESTER, MASS., IN JANUARY, 1887, WITH NOTES ON THOSE OF OTHER LOCALITIES.

By W. A. WILCOX.

During the month of January only a small portion of the fishing fleet has been actively employed. Receipts have been light, not varying much from those of the corresponding month of one year ago. For several years the new year has opened with a market overstocked with both domestic and imported fish, and prices so low as to scarcely pay the cost of production, but during the present month a largely increased and steady demand has reduced stocks, and prices have slowly advanced.

Since the beginning of the year much rough weather has been encountered, but there have been no serious losses of life or property, and much encouragement is felt in making preparations for the work of 1887.

Bait has been found abundant on the fishing banks, and additional quantities have been supplied from the cargoes of frozen herring brought from Newfoundland and the Bay of Fundy.

A few vessels have followed the fresh halibut fishery on the Grand Bank. These arrived with small fares, and reported much rough weather. The shore fleet has been detained in the harbors adjacent to the fishing grounds a large part of the month, the weather preventing extensive fishing. The Bay of Fundy herring catch has been light. Schooner Ada R. Terry, of Gloucester, arrived on January 5th with a