

DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES
Dillingham, Alaska.

ALASKA
OCT 6 - 1917
FISHERIES

August 24, 1917.

The Commissioner of Fisheries,
Washington, D. C.

The following report of my operations in the Bristol Bay region, Alaska, during the fishing season of 1917, is respectfully submitted.

Shirley A. Baker
Warden, Alaska Service.

Narrative of Operations

A late cold spring resulted in delaying the ice break-up, which was five or more days later than the ice break-up of the season of 1916.

Practically all of the Bering Sea cannery fleet arrived in the waters of Bristol bay between the middle of May and the first of June, a straggling few not putting in an appearance until the middle of June.

I commenced the season's work by making an inspection trip on June 4 up Wood river, going as far as Lake Aleknagik. I found the lake nearly free of ice, but the waters of both lake and river were high and it was apparent it would be another week or ten days before they would sufficiently subside to permit of the construction of the Wood river census-taking rack.

June 9 I made a trip of inspection of the Kvichak river canneries, returning thence to Dellingham on Nushagak bay.

Securing a tug, pile-driver, and crew from the Scandinavian Cannery, on June 13 I set the Wood river markers prohibiting fishing

The Commissioner...2

operations in that stream, and also the markers closing the Nushagak river to fishermen.

In conjunction with Mr. Kenneth P. Hutton, skilled laborer of Yes Bay, detailed for service on Nushagak bay, I fitted out at the Scandinavian cannery the expedition for the counting operations at the Wood river census station, the Alaska Packers' Association cooperating to make the count a success. The Alaska-Portland Packers' Association kindly furnished a launch to assist in towing the expedition to Lake Aleknagnik, which trip was made on June 14 without incident. Work on the construction of the census-taking rack commenced on that date, and on June 21 the rack was installed and ready for service.

*now
fish catch
10/17. 4273*

Following this and until and including July 24, I patrolled the waters of Wood and Nushagak rivers and Nushagak bay, visited canneries and salting stations on Nushagak bay and the Igushik river, and also made several trips to the fishing banks in Bristol bay off the entrance to Nushagak bay to ascertain if any fishermen were destroying catches of dog salmon.

From July 25 to August 1, I visited the canneries of the Naknek, Kvichak, and Egagik river regions, and in this connection made a trip up the Kvichak river as far as Branch river.

The return to Nushagak bay was made on the night of August 1. The remainder of the season was spent on the waters of Nushagak bay and Wood and Igushik rivers.

During the season I visited all the canneries and salting stations on Bristol bay and its tributary waters, with the exception of the cannery of the Red Salmon Packing Company, of Ugashik, and also the salting station of the Alaska Packers at that place.

Salmon Runs

Without question the salmon runs were heavier in the waters of Bristol bay this season than last. The run of red salmon in Kvichak river was the heaviest known in several years, the claim being made that it was larger in volume than the record-breaking run of red salmon in that stream in the season of 1914. The volume of the run on the Ugashik river was also heavy. The run in the Egagik river was similar to the Kvichak run in volume and held up longer on that stream than in any other, continuing until July 22. The run in the waters of Nushagak bay was about the same in volume and duration as that of last season. The salmon run in the Naknek river was not developed this season, due to the very stormy weather and the continuous rough water on the fishing banks where

The Commissioner...3

the fishermen make their catches. Naknek fishermen operated on the Kvichak river this season. Reports from all the lakes finding their outlets in Bristol bay were to the effect that larger schools of salmon by far were spawning than in many years past.

Time and Duration of Runs

King salmon began running in the first days of June, the run being good during the remainder of June and whittling to extinction July 10. The run of this fish was not so heavy as a year ago. The red salmon run was about ten days later in developing than last season. The run showed first in the waters of the Egagik river on July 1, and at about the same time in the waters of the Ugashik. The run in both these streams lasted until July 22. In the Kvichak river the red salmon run began July 4 and lasted until July 18, while in the waters of Nushagak bay the run did not begin until July 5 and stopped or slacked up July 15, the run there being shorter than in any other waters.

Dog salmon in all the streams put in their appearance with the kind salmon, the run continuing until about July 15. As compared with the dog salmon run of last season, the volume of this season's run was very light.

This season offered a marked contrast to last season's salmon runs in the movement of the humpback, the run of this fish being notably light as compared with the large humpback run in Bristol bay waters in the season of 1916.

Silver salmon also showed in very light numbers as compared with the heavy silver salmon run in Bristol bay waters of last season. The run of these fish began July 22 and was still in motion when boats were called in August 3.

Enforcements and Regulations

Generally speaking, there seemed to be a sincere desire on the part of the canneries to comply with the fishing regulations, and a manifest spirit or purpose on the part of the various cannery superintendents to cooperate with the Bureau of Fisheries. No instances of wilful destruction of fish were brought to our attention. As soon as the run of salmon became heavy, most of the canneries placed their boats on the regular fishing limit of 1,200 fish per day. The two canneries of the Alaska Packers on Nushagak bay did not place their boats on a limit, because of the inexperience of a number of the fishermen employed by that association and the light catches made by them. Nevertheless, no fish were destroyed at either of those canneries on account of over-supply.

The Commissioner...4

On my trip up the Kvichak river July 26, I noticed numbers of dead fish floating. I counted 160 dog salmon and 70 red salmon, and then stopped the count and investigated a fishing fleet nearby, visiting many of the boats. The men on these boats united in the statement that the fish represented cargoes of scows and fishing boats lost during a severe storm. I later found out that three scows of fish had been lost and a number of fishing boats swamped in that locality and that the story told to me by the fishermen was likely correct.

At 4:30 a.m., July 20, I found five boats fishing above the prohibitive stakes in the Nushagak river. They comprised a bunch of independent fishermen, two of the boat crews being white and three native. I took the names of these men, and with ample evidence intended to bring them to immediate trial. Action, I found, was impossible on account of their being no United States Commissioner in the Nushagak district at that time. In the meantime, the information is available for use whenever prosecutions are possible.

Set or Stake Nets

Following is the number of set nets which were in operation the present season in the region I covered:

Wood River (Including Wood River Flats)	54
Nushagak River Proper.	43
Nushagak Bay Waters.	249
Igushik River Proper.	40
Kvichak River (Between Branch River and mouth of river).	162
Snake River.	24
Naknek River Proper.	87
Egagik River Proper.	91
Total	<u>750</u>

The foregoing list does not include the set nets on the Ugashik river which, as elsewhere stated, I was unable to reach during this season.

Indications are that far fewer set nets will be in operation next season than were out this season. Set net operators depend almost entirely upon the canneries for their nets, the cannery superintendents turning over to them the old gill nets that they have scrapped. This season the canneries condemned very few of their gill nets, on account of inability to get new nets. Since the war began it has been almost impossible to obtain a supply of Irish linen thread with which to make the nets, and until the situation changes the canneries will use their old nets as long as they will hold together. When they eventually give them to set-net operators the nets are so rotten that they are almost worthless for fishing.

*Extracted
for Dr. Moore
11/10/17.*

The Commissioner...5

Traps

The only fish traps in the Bristol bay region are the four operated by the Alaska Packers in the Nushagak bay waters and the three of the Alaska-Portland Packers, also located in the waters of Nushagak bay. These traps made only moderate catches this season. The lead of the mammoth trap operated by the Alaska Packers' Association at Coffee Point last season was shortened 300 feet this season, and better catches were made in consequence.

Salting Stations

Salting stations operated in Bristol bay waters were distributed as follows:

Company	Alaska Address	No. Stations
P. H. Nelson	Koggiung, Kvichak River	1
P. H. Nelson	Nushagak, Igushik River	1
Alaska Packers' Association	Nushagak, Igushik River	1
Libby, McNeill & Libby	Nushagak, Igushik River	1
Alaska Salmon Company (Chris Hale)	Koggiung, Kvichak River	1
Alaska Packers' Association	Ugashik, Ugashik River	1
	Total.	6

(The Olson Bros., and also Pete Iverson, salted salmon on the Bark Albert.)

Most all of the canneries salted a small output of salmon bellies as "gratuities" for cannery officials and employes.

Canneries in Operation

The number of canneries in operation in Bristol bay and its tributaries is as follows:

Company	Alaska Address	No. Canneries
Alaska Packers' Association	Koggiung, Kvichak River	2
Alaska Packers' Association	Naknek Naknek River	3
Alaska Packers' Association	Nushagak Nushagak Bay	2
North Alaska Salmon Co. (now Libby, McNeill & Libby)	Koggiung Kvichak River	2
North Alaska Salmon Co. (now Libby, McNeill & Libby)	Nushagak Nushagak Bay	1
Libby, McNeill & Libby	Nushagak Nushagak Bay	1

Company	Alaska Address	No. Canneries for'd	11
Libby, McNeill & Libby	Koggiung, Kvichak River	1	
Northwestern Fisheries Co.	Nushagak, Nushagak Bay	1	
Alaska Salmon Co.	Dillingham, Wood River	1	
Columbia River Packers' Assn.	Nushagak, Nushagak Bay	1	
Alaska-Portland Packers' Assn.	Dillingham, Nushagak Bay	1	
Alaska Packers' Association	Egagik, Egagik River	1	
North Alaska Salmon Co. (now Libby, McNeill & Libby)	Egagik, Egagik River	1	
Red Salmon Packing Co.	Ugashik, Ugashik River	1	
Red Salmon Packing Co.	Naknek, Naknek River	1	
Naknek Packing Co.	Naknek, Naknek River	1	
Bristol Bay Packing Co.	Koggiung, Kvichak River	1	
	Total...	22	

New Canneries and Improvements

The Northwestern Fisheries Company, of Seattle, are erecting buildings for a four-line sanitary cannery. Two lines of this cannery will be in operation next season. The cannery is located at the mouth of the Naknek river.

The Northwestern people also installed two sanitary lines in their cannery at Nushagak this season.

Libby, McNeill & Libby enlarged their Branch river cannery this season into a four-line sanitary cannery.

The Alaska Packers' cannery, at Egagik, also installed another sanitary line, making it a three-line cannery.

New Fishing Operations

According to information received from Mr. Hale, manager of Wood River Cannery, the development of new fishing banks was begun this season by the Pacific-American Fisheries Company at Port Moller bay, and by the Lagoon Packing Company at Nelson's lagoon. Mr. Hale also informed me that the following companies operated canneries in those localities:

- Bering Sea Packing Company..... Herendeen Bay
- Fidalgos* Fadelta Packing Company
(Carl Sutter, Supt.)..... Herendeen Bay

However, news reached me through cannery officials that the catches made were very light in each instance. Operators used purse seiners altogether.

The Commissioner...7

Food Conservation

Beginning July 6, I visited the natives operating set nets on the waters of Nushagak bay and urged them to save all the fish they caught, and by no means to permit any to be wasted, reminding them that the country was waging a great war, and that it was their patriotic duty to see that all fish taken were conserved. They replied to these overtures in a fine cooperative spirit in every instance and put up far more fish than during either of the two previous seasons I spent in that region.

Sanitation and Condition of Buildings

As far as I was able to observe, the packs put up by both salting stations and canneries were sanitary in every particular. The buildings of several of the canneries--notably the North Alaska Salmon Company, at Branch river, and the Alaska Salmon Company's cannery, at Wood river--are old and dilapidated, having been clumsily thrown together when constructed. This gives these canneries a dirty, forbidding appearance and leads to the conclusion that the packs put up by them may be on a par with the structures; however, sanitary lines and modern equipment are used in putting up the packs.

The apartments or living quarters for the Chinese and Mexican laborers of the Northwestern Fisheries Company, at Nushagak, are old shacks, carelessly thrown together, being built mostly of scrap lumber, and constructed by the Chinese and Mexican laborers. Some of these shacks are only about seven by nine feet, furnishing accommodations for from two to four men. I also noticed that this class of laborers would build these shacks at some of the canneries where there were ample accommodations for them in the bunk houses furnished by the canneries. It seems that some of them prefer living to themselves in these crowded, dirty shacks, while, on the other hand, the superintendents at some of the canneries will not allow such houses to be built on their grounds.

I understand that the Northwestern Fisheries Company are going to build new houses for the men next year. They built a nice large bunk house for the fishermen this season, and are making a good many improvements, as before stated.

Wood River Salmon Census

The count of red salmon entering Lake Aleknagik to spawn was ably handled by Mr. Kenneth P. Hutton, elsewhere referred to in this report,--the tally at the census station located at the mouth of the lake running up to a grand total of 1,081,508. This is almost twice the number of fish that entered the lake to spawn last season and about four times the number of salmon that were counted at the sta-

The Commissioner...8

tion in the summer of 1915, which season saw the lightest salmon run in Nushagak waters in many years. Bad storms this season permitted of an enormously higher escapement into Wood river than was the case either last year or in the year previous.

Some of the cannery people are still of the opinion that the rack is a detriment to the salmon entering the lake. They seem to think the gates are closed over half of the time, which would naturally hinder the fish from passing through the gates, but such statements are without foundation.

From what I can learn, these rumors are started among the winter-men. These winter-men are very much opposed to the closing of Wood and Nushagak rivers, and for this reason they want to defy the representatives of the different departments of the government.

The percentage of dead fish on the banks of Wood river and the lake this season, caused by gill-net injuries, did not run as high as in the two previous seasons. This was due to the heavy blows during the big runs, which gave the fish a chance to get by the fishermen or the gill netters on the flats at the mouth of the bay. It seemed that the fishermen could not find out where the fish were running after they got further up the river, although it was the general opinion that they were running deep in the middle of the channel.

The gill-net fish start dying with the first fish entering the lake and continue with increasing numbers. Only the slightly injured--or about ten per cent--of the gill-net fish live to spawn, leaving about ninety per cent that do not ripen and, naturally, die before spawning.

The winter-men, who circulate the reports relative to destruction of salmon by the Wood river rack, go up to the lake in the fall, supposedly, to catch or put up fish for dog feed, but I have learned through association--you might say--that they go there for the express purpose of brewing and having what they term a "big time." They start going up to the lake about August 15 on these "picnicing parties," as they call them, and they last until about September 15, and sometimes later. The natives also go there for the purpose of putting up dog fish, which they do.

Of course, the natives see these so-called "white men" drinking, and they do likewise. However, I believe the white men give the whiskey or "bee-wak" to the natives for purposes that I do not care to state.

I would also like to state, that out of about one hundred and twenty-five white men living on the Nushagak bay and its tributary waters,

The Commissioner...9

there are only about fourteen citizens, and all of them have been living in the country from five to thirty-five years. Therefore, I can see no reason for their not having their full citizenship papers, if they ever intend to make good, law-abiding citizens. They spend their time in the winter making scurrilous remarks against the government and the corporations, offering insults to the different government officials, and lying around in a drunken stupor.

In order to understand the real situation as it now exists in this locality, it is necessary that one spend a winter or two there. This is the only way by which it is possible to get on the inside of existing conditions.

Weather Conditions and Losses

The season in the Bering sea region was remarkable for the unusual violence of storms experienced. During the first part of the season of the salmon runs, the wind blew almost continuously from the West, Northwest, and North, but from about the 5th of July forward the winds came from the Southwest and South. There were several notable storms. During one of these, seventeen of the fishing boats of the Alaska Packers' Association were swamped, some of them being capsized, while many boats of other canneries suffered similar or worse misfortunes. Fishing operations were very materially interfered with all during the season by unfavorable weather conditions. In the Kvichak river waters, the Alaska Packers' Association lost two scowloads of salmon, and Libby, McNeill & Libby one. These, with the loss of the catches of from sixty to seventy-five fishing boats, ran the total of fish lost between 150,000 and 200,000.

Two fishermen and one tallyman on fish receiving scow and the captain of a tow boat were drowned in the Kvichak waters, these men all being employes of Libby, McNeill & Libby. The Williams brothers came up with the intention of salting two hundred barrels of salmon on the Kvichak. One of the brothers was drowned, and the other then decided not to try salting any salmon and went to work for the Libby company.

The ship St. Francis and the ship Standard, both owned by Libby, McNeill & Libby, were wrecked on the upward trip in the spring, the St. Francis being wrecked in Unimak Pass, May 14. While the ship was a total wreck, nearly all her cargo was lost. The Standard was wrecked, May 15, off Cape Constantine, and was a total loss, including her cargo. There were no lives lost on either ship.

On May 9, the barkentine St. Katherine, owned by the Red Salmon Packing Company, was wrecked in Ugashik bay. She struck on

The Commissioner...10

what is known as Muddy Point, near King Salmon Point, and on the 11th slipped back into the channel and listed starboard to the extent that she filled with mud and water. Mr. Smith, superintendent of the Red Salmon Packing Company, ordered powerful mud and water pumps immediately. After working with her all summer, the ship was finally raised, and I have been informed by responsible parties that she is now being towed down. Practically all of her cargo was lost, but no lives were lost.

Both at Koggiung and Naknek, several of the launches of the Alaska Packers' Association were so badly damaged during this stormy weather that it was necessary to beach them for repairs.

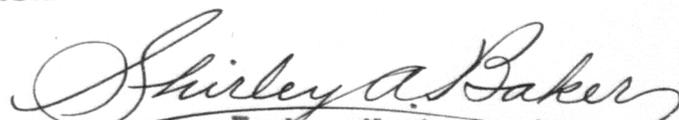
The Bristol Bay Packing Company and Libby, McNeill & Libby each had one of their launches damaged.

RECOMMENDATIONS:

It is very necessary that Wood and Nushagak rivers be kept closed to commercial fishing, as in the past, and a constant patrol should be kept in both rivers, in order to make the work prove telling and effective.

The Naknek and the Kvichak rivers should also be closed to commercial fishing. The Naknek river should be closed from the north side, between the Northwestern Fisheries Company's new cannery and Naknek Packing Company, to the Alaska Packers' Association (Diamond-O Cannery) on the south side; and the Kvichak river should be closed above Koggiung proper. This would undoubtedly be a good suggestion and would do a great deal towards helping the salmon to escape the gill netters and pass on up the rivers to the spawning grounds.

It is highly essential for the benefit of the service that a staunch, seaworthy launch be placed at the disposal of the representatives of the Bureau of Fisheries covering the Bering sea cannery district. This launch should be from 45 to 50 feet long and should not draw more than four or five feet of water. A launch of this size should be built very strong for Bristol bay waters, and equipped with nothing less than a 40 horse power, medium heavy-duty engine. Cannery operations in Bering sea have recently been extended, as related under another heading of this report, and to cover the different operators and make any inspection worth the name requires the use of a vessel with a cruising radius of several hundred miles. Without such a vessel the Fisheries representatives are at the mercy of the superintendents of the different canneries, and often are completely prohibited from making visits to districts which they feel urgently require supervision.


Warden, Alaska Service.

note 4/23

DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES



Dillingham, Alaska,
August 24, 1917.

The Commissioner of Fisheries,
Washington.

Answering your letter relative to the wreck of the Ships St. Francis and Standard and the barkentine Katherine in Bering Sea waters last spring, and also your query respecting the safety of Mexican Laborers that were on those vessels, I have the following:

No lives were lost in any of the wrecks.
No special hardships were undergone by those abroad, either the St. Francis or the Katherine.
Those ~~aboard~~^{aboard} the ship Standard did not fare so well, some of them not being picked up for five days after the wreck.

No partiality or prejudice was shown in taking the people off the wrecked vessels, the Mexicans faring as well as any other nationality or class.

The St. Francis went on the rocks at Unimak pass at 2:30 a.m., May 14. She carried a general cargo of cannery supplies and was on her way from Seattle to Koggiung, Bristol Bay. Of the 250 cannery laborers and crew ~~aboard~~^{aboard} only a few were Mexicans. The vessel went shore under full sail, striking the rocks broadside. Her hull was badly damaged by the jagged reefs and the sea was soon between decks. The steamer Norwood was in the pass and was the first vessel to pick up the S.O.S. calls of the stricken vessel. The Norwood steamed at top speed and arrived at the scene of the wreck at 9 a.m. the same morning.

Due to the high sea running it was impossible to take the men off the St. Francis on the seaward side and they were therefore landed on the shore and later taken aboard the Norwood, it being 10 p.m. before the last of the wrecked crew and cannerymen were aboard the rescuing vessel. The captain of the Norwood immediately sailed for Dutch Harbor where the men were set ashore and taken care of by the United States Government. No one sustained any injury and a few days later nearly all of the wrecked cannerymen and crew were taken on to the Kvichak river cannery of Libbey, McNeill & Libbey,--- that being their destination when wrecked---by the United States revenue cutter Unalga. The St. Francis is still on the

The Commissioner---2.

rocks and a total loss. Practically all of her cargo was also lost due to the peril of the rocks and the treacherous sea currents of that locality.

In the saving of the men aboard her there was not the slightest discrimination on account of race, color or nationality. Every man's life was considered worth as much as any other's by the rescuers.

The ship Standard went ashore at 9:30 p.m., May 15, on the Sterling Shoals off Cape Constantine. The weather was hazy and a heavy sea was running. There were 150 people aboard her, and as previously stated, all were saved.

The Standard gave her position wrong in the S.O.S. calls sent out by her wireless. For these reasons no vessels came to her immediate relief and all aboard took to life boats. The Sterling flats are out of sight of land, and crews of some of the life boats became bewildered and for several days were lost. Some of these lifeboats brought up at the Walrus Islands and at Kulukuk Bay. As in the case of the St. Francis all persons aboard were treated alike by those rescuing. The person who suffered more than any other was Mrs. Searls, the wife of Superintendent Searls, of the Libbey, McNeill & Libbey cannery at Ekuk Point, Bristol Bay. It was five days before she and those with her were located on the Walrus Islands and rescued. During this time suffered severely from weather exposure and lack of comforts. The Standard went to pieces almost immediately in a heavy storm that followed hard after she struck. All her cargo of cannery supplies was lost. Both the St. Francis and the Standard belonged to the Libbey, McNeill & Libbey Company.

The barkentine St. Katherine belonged to the Red Salmon Packing Company and on her way from San Francisco to Bristol Bay went shore at 3 p.m., Wednesday, May 9th, on Muddy Point, near Kig salmon point, at the mouth of the Ugas^{nik} river while in tow.

Crew and cannery laborers aboard were all saved with no hardships suffered. Very little of the cargo of cannery supplies, however, was saved. For a time it was thought that the ship would be a total loss, but by very diligent work carried forward under almost supreme difficulties she was finally floated, and during the first weeks of September was towed out of Bering Sea and into Dutch Harbor.

Shirley A. Baker
Warden Alaska Fisheries.