British Columbia Salmon Fisheries

By W. D. Burdis, Secretary

The Pacific Ocean and the large rivers in Canada along its 7,000 miles of coastline abound in fish of all kinds, of which the most noted is salmon of various varieties, bred in British Columbia rivers.

In 1876, three small canneries were established on the Fraser River, and later canneries were established at various points along the coast of British Columbia and Alaska. All grades of salmon were put up, but the name of Fraser River Sockeye salmon maintained its reputation of being the choicest food of its kind.

In former years there was only a market demand for the "red-fleshed" salmon (popular prejudice having fostered the preference), but since the supplies of sockeye decreased on the Fraser River, an ever-increasing demand has arisen for Cohoes, Pink and Chums, all of which form an attractive and highly nutritious article of food and are being packed in greater quantities.

There are five distinct species of salmon on the Pacific Coast, viz.: 1. Sockeye, deep red in color, weighing about 7 pounds, rich in oil; 2. Chirook or Spring, bright red in color, weighing from 8 to 80 pounds, moderate oil content; 3. Cohoes, lighter red in color, weighing about 8½ pounds, and less oil content; 4. Pinks, pink in color, weighing about 6 pounds and light oil content; 5. Chums, Pale in color, weighing about 7 pounds, light oil content.

Sockeye salmon is bred solely in British Columbia, in the Naas, Skeena and Fraser Rivers particularly, and is recognized as being supreme in quality, and obtains the highest price on the market. In migrating from the ocean to the Fraser River in Southern British Columbia, which empties into the Gulf of Georgia on the 49th parallel, the sockeye pass through the Straits of Fuca and Puget Sound in the United States, and are captured, packed, and sold under the name of "Sockeye Salmon," the recognized trade name for this grade and quality of salmon.

Its special qualities are the deep red color of the flesh and richness in oil, far in excess of any other description.

The "Red" salmon, caught and packed in Alaska and Siberia, is distinctly inferior in quality to the British Columbia sockeye, although it is sometimes wrongfully labelled that well-known trade name. "Alaska Reds" imported into Canada must be labelled as such, the word "Sockeye" on the label being forbidden by the Canadian Government.

Return to Hatching Grounds.

All salmon spawn in creeks, rivers or lakes, and a peculiarity of most of the species frequenting the Pacific Coast is that the mature fish return to the river where they were hatched. The female deposits her eggs in a bed made by her in the gravelly bottom of the stream or lake, which are fertilized by milt from the male and partially covered with gravel. Shortly after both male and female die.

The average time from deposit of eggs to hatching the fry is about 160 days, though slight differences in the species and temperature of the water influence the development.

Soon after hatching, the young salmon drop down to the sea, where they stay until matured and ready to reproduce their species, which usually occurs in about four years from birth.

The return of salmon to the Coast waters usually follow in sequence; Spring salmon fishing begins in March; Sockeye, in the north in June, and in the south in July; followed by Cohoes, Pinks, and Chums in the order named, the canning season lasting about four months. Propagation by means of hatcheries established on several salmon rivers is largely adopted as an aid to the natural method.

When the season for canning opens the fish are caught in traps, seine and gillnets, delivered to the cannery, and immediately processed. Hand labor has been superseded by machinery in the various processes; the latter has proved to be much more speedy and efficient. The fish is thoroughly washed with fresh spring water. A wonderful automatic machine, called the Iron Chink, removes the head, tail, fins, splits the body down the belly and removes the entrails and blood at the rate of 60 fish per minute. Water under heavy pressure is forced into the carcase during this process. The carcase then passes to the butchers, who trim it by hand and remove any fragments of fins, etc., which might have escaped the Iron Chink. It is then placed in the fish-cutting machine where by a series of circular revolving knives it is cut into properly sized steaks to fit the various sized cans.

Canning Operations.

The steaks are then conveyed to the filling tables where, if to be hand filled, they are carefully placed in cans by operatives using gloves kept scrupulously clean; or to a filling machine which, by means of a plunger, delivers the steaks with the backbone lengthwise of the can, which holds the flesh in position and makes a firm package.

The only foreign ingredient added to canned salmon is a suitable quantity of salt (automatically placed while the can is being filled) for seasoning purposes.

The filled cans are then examined by experienced inspectors who throw out cans that do not come up to standard in packing and weight.

—AND THE WORST IS YET TO COME

The First Lifeboat.

One of the most extraordinary cases of what may be called an accidental invention is that of the liftboat. A man named Wouldhave was out walking one day when he was asked by an old woman to help her lift a can of water which she had filled by means of a broken wooden bowl.

The bowl was floating on the surface of the water, and as he talked to the woman, Wouldhave turned it over with his finger. It immediately righted itself. Amused by its antics he repeated the performance; then it struck him that he had made a wonderful discovery. The result of his chance meeting was the self-righting lifeboat, which was designed by him on the lines of the broken bowl.

What he had discovered was that anything made of floating material and shaped like one half of a basin could float only with its convex surface downwards. A boat made on these lines cannot remain upside down for more than an instant when it is turned over by a heavy sea.

"If we could level up pronunciation, we would get over most of our social difficulties," says a scientist.

The first meerschaum pipe was made in 1723 by a Hungarian shoemaker, who was a clever wood carver.

The History of Quinine.

One of the most valuable remedies yet discovered is quinine. The drug has been known since 1655, when it was called "Jesuits' Powder." The bark has been used in England since 1660, CharlesII. being considerably relieved by it during a bout of fever.

Two French astronomers encountered the bark when travelling in Peru, and sent it home to Linnaeus, the renowned botanist, who named it Cinchona in honor of the wife of the Spanish Viceroy of Peru, who, when ill with fever, derived great benefit from it, the drug being administered by a native who knew its medicinal value.

The attention of the Indian authorities being drawn to Cinchona, it was shipped there recklessly, and there were fears that the supply would be exhausted; definite steps, however, were not taken until 1859-60.

The quinine-bearing country was divided up amongst several searchers, and different species of the drug were shipped to Kew, but with great difficulty owing to the obstruction of the Peruvian Government.

Oatmeal is responsible for more defective teeth than either white flour or rice.

Eider Down, Potential Canadian Industry

Investigations carried on by several ornithologists in the Gulf of St. Lawrence and more northern parts of Canada have brought to light the possibility of an industry of considerable magnitude in the production of eider down. Thousands of eider ducks nest on the rocky shores of the Gulf of St. Lawrence and northword while a few scattered breeding places are also to be found farther south, and these nesting grounds provide a potential source of supply of down which is in demand in commerce.

The eider duck is an insectivorous bird which, in addition to its protective virtues, can be made to provide a direct and handsome revenue. Yet no attempt has been made in Canada to exploit the thousands of birds, and opportunity exists for the building up of an industry which, with the adequate protection of the birds, would be permanent, and, in fact, increasing.

The industry can be made a permanent one, because it is not necessary to kill the birds to secure the down which is in such demand. In fact, where the most down is collected it is found that the birds increase in numbers most rapidly. The ducks pluck the down from their bodies to line their nests, and it is from the nests that it is gathered. Two collections of down are made each year, the first being made shortly after the nests are built. This procedure does not interfere with the hatching of the eggs as the ducks immediately provide a new supply. The second collection is made after the eggs are hatched and the nests abandoned for the season.

The conservation of the eider duck in Europe has been practised for many years, and has resulted in the building up of profitable industries in many locations, especially in Iceland and Norway. There the birds are carefully protected in the nesting seasons, even the discharging of guns in the vicinity of nesting places being strictly forbidden. Under such protection the birds become exceedingly tame and live around human habitations as fearlessly as barnyard fowl. An idea of the value placed on the eider duck in these countries may be gained from the fact that not long ago an island off the coast of Iceland, eight square miles in extent, sold for approximately $200,000 solely on account of the eider down produced there.

The down is valued highly and the prices range from $2.50 to $5.00 a pound. It is much sought after for the manufacture of quilts, comforters, etc., owing to the fact that it combines a minimum of weight with a maximum of warmth. Each nest, it is estimated, supplies slightly over an ounce of down per season, and at the present prices should produce from 30 cents to 50 cents worth of down each year.

Under existing laws eider ducks in Canada are partially protected by Dominion and provincial authorities, and it is probable, as a result of the investigations which have been conducted, that complete protection will be extended. Strangely, the possibilities of developing a valuable industry have thus far been neglected by residents of the shores of the St. Lawrence Gulf and along the Arctic coast who have in the eider duck a valuable resource, to some extent unique, in that its potentialities increase the more extensively it is exploited.

Most of the successful women riders at the English Olympia horse show this year used an old-fashioned side-saddle. Only four of twenty-one competitors rode astride. Princess Mary, as a leader of fashion, rides side-saddle, and others point out that a woman not only looks more graceful riding in that way but needs to be a better horse-woman.

"I heard a very woeful tale,"
Said Mr. Billy Goat,
"About a big long-necked giraffe
Who has a quinsy throat.
"That's nothing! There's a centipede,
Said Mr. Pig, "who mourns
Because he has a hundred feet,
And every toe has corns."

The scarlet pimpernel, found in most English grain fields, shuts its petals when the sky gets dark and cloudy. Thus, it has earned for itself the name of "Shepherd's Weather Glass."

The Gray Day.

To-day is a ragged wanderer
From November's calendar—
It is never a September day—
The wind blows raw,
The leaves whip and turn,
The trees bend in agony
And rain drips ceaselessly
From a gray sky. . . .

Out in the garden
My poppies nod
Scarlet, pink, golden,
Trying to make me remember
That it is still
A long way to winter.

The cornflowers are blown and browsy,
And the hydrangeas
Sweep against the grass,
Too rain heavy to hold up their heads.

No, it isn't winter yet,
But why, cold, gloomy day,
Did you come to remind me
That it is no longer summer?

The poppy petals drop and blow
And only the seed pods bend
Awkward and ugly
Under the wind. . . .
It is a sign . . . .
Summer has fulfilled her purpose;
The harvest hurries. . . .

Oh, let us draw the curtains
And forget!
Perhaps the sun will shine
To-morrow. . . .

—Abigail Cresson.

Rain-Making Insects.

Seventy years ago David Livingstone discovered a "rain-tree" which showered a quart of liquid from its leaves in about an hour. He did not know the cause until it was discovered that the so-called rain-trees of tropical regions belonged to many families, and that the cause was not of vegetable origin at all, but the work of an insect.

Most gardeners, especially those who grow carnations, are familiar with a little green insect called a frog-hopper or cuckoo-spit. It is, in fact, a kind of aphis which has developed a remarkable projective adaptation in the form of the "spit."

This is the sap of the young plant, worked up by the insect, which sucks it up so greedily that the surplus oozes through its delicate skin. This fluid, overflowing, is lashed into froth by the creature's "tail." The whipped-up liquid finally surrounds the creature's body and makes a sort of veil.

The same thing occurs in the case of the "rain-trees." The tropical insects are also of the aphis order, but larger and more numerous, so their attack on the tree causes the strange and, at times, beneficial "rain."

Her Finery.

When on the woods the early frost
Let fall its spangled cloak,
A dryad left at break of day
Her refuge in the oak,
And shivering in the chilly breeze
That swept the countryside,
Lay down upon a mossy bank
Among the ferns and died.

The sumac berries are her beads
Of coral round and red,
The goldenrod was once the plume
That graced her russet head.
The aster with its fringe displays
The remnant of her gown,
The withered leaves beneath our feet
Are all her sandals brown.

—Minna Irving.

Redurtio ad Absurdum.

First Man—"My wife was successful with the exercises, and was reduced to a hundred and twenty pounds."

Second Man—"Mine failed and was reduced to tears."

Adrift in Open Boats on Indian Ocean

Through a rift in the storm clouds the moon sent down a broad pencil of light, disclosing two little lifeboats, perilously loaded, which bobbed about like leaves in an autumn gale, near a crippled steamship, wallowing, decks awash in a trough of the waves.

The nearest land was nearly 2,000 miles away, across a wilderness of waves, along whose crests ran ribbons of the eerie witch fire of phosphorus. Overhead the mysterious radio was whispering messages of cheer and succor from a vessel less than 300 miles away, but it groped in vain for the antennae. A giant wave had attended to that.

Then, in the darkness, began a struggle, which adds another epic of bravery to the annals of the sea.

"Our oars! It's arms and ash, boys," ordered Cecil Foster, captain of the steamship Trevessa, 5,000 tons, which sailed May 15 from Australia.

"Our oars," echoed J. C. Stewart Smith, chief officer of the Trevessa, and the grim fight which ended nearly a month later at Rodrigues and Mauritius was on.

But the Indian Ocean lived up to its sinister reputation and claimed ten lives before the survivors were picked up. Each in his tongue, for there were several nationalities in the crew, begged first for water, and then for a priest. They had fought the sea and won, and their bodies craved God's benediction of water and their souls his grace.

Unconsciously sailing away from help that was hastening to them from east and south, the two little boatloads of men subsisted for nearly a month on one biscuit and the lid of a cigarette tinful of condensed milk daily, their water rations being doled out by the teaspoonful.

The Trevessa, an ex-German steamer of 5,000 tons, belonging to the Hain Steamship Company, bound for Europe, had covered about 1,800 miles of the journey when she encountered heavy seas, shipped more water than her pumps could handle, and in spite of the gallant efforts of the crew, it was soon found that it was a mere matter of time before the storm would conquer in the struggle.

S.O.S. messages, giving the Trevessa's position, were sent out just as the ship was abandoned, at 2.15 o'clock in the morning, replies of O.K. being received from the Runic and two unknown vessels, but it was not possible to wait for promised aid.

The two small boats kept together all night, hailing each other through the enshrouding gloom at intervals, their commanders straining their eyes for the ship lights that would mean help was at hand.

The storm raged; the boats were swept from cliff-like summits of waves to cavernous depths and up again. But though the anxious watchers on the poorly provisioned craft scanned the horizon until night gave way to dawn, and dawn to day, and night came slowly once more, no heartening bulk appeared in the distance.

Yet, less than 300 miles away, the Trevern and the Tregenna were sending out reassuring radios!

Rain had added to the discomforts; the weather was, as the captain said, "dirty," and it was impossible to keep in sight of one another. At length, after five days of hide and seek, they lost each other completely.

The captain kept his course. A stretch of three days' calm weather permitted him to make good progress, but accident after accident befell. The stepmast was lost, something happened to the rudder, one disaster after another delayed them. Two native firemen died of exposure during a second bad storm.

Even then, with the longed-for land within their vision, they almost knew the fate of Moses, who only looked upon his Promisied Land, for the treacherous reefs around the island nearly wrecked them, and they were saved in the nick of time from being smashed to bits against the rocks.

Chief Officer Smith had a harder tale to tell when he finally brought his crew to safety at Mauritius, after a twenty-five-day fight against overwhelming odds.

The rain that had brought some relief to the captain's boat was not encountered by Smith, water rations being reduced to two teaspoonfuls every twenty-four hours.

In spite of warnings, four Indian members of the crew, under cover of night, drank sea water. That was the beginning of their end—which was madness and then death. Their bodies were committed to the deep within a few hours of one another.

Then four British members of the crew died of exhaustion during a period of high winds succeeding the dreadful deaths of the Indians.

The winds were baffling, being inconstant in direction, and strong enough at times to force Smith to reef his sail; the compass was useless, and squally weather made steering by sun and stars frequently an impossible feat.

After twelve days, water gave out entirely. Henceforth, for fourteen days, the men had only such water as came to them in infrequent showers.

What seemed to them the most tragic occurrence of all was the death of an Indian, the chief cook, Allchin, whose life slipped away only one hour before they heard the welcome hail of two lone fishermen, who took them in tow and acted as pilots through the passage between the reefs into the Baie du Cap.

It was 4 o'clock in the morning when the hail of the fishermen brought hope to despairing hearts. It was five hours later that they reached the shore.

So completely exhausted were the survivors that they had to be carried from their boats on stretchers, crying unashamed, and uttering thanks to God aloud for deliverance. Their first request was for water; their next, for a priest.

Lieutenant William Bligh—("Breadfruit Bligh" as he was commonly called, on account of his discovery and transplanting of this edible growth from the islands he explored) was a reckless voyager of the eighteenth century. His specialty seems to have been islands, and on one of these he made a somewhat lengthy stay. His crew, rather a desperate lot, mingled with the island women, and when Bligh at last ordered that they set sail in their mother ship, the Bounty, the crew refused.

Always a domineering soul, Bligh forced them, on pain of death, to board the vessel, and cast off from the delectable shore.

Rankling under what they considered injustice, the crew arose against him, the mutineers putting Bligh and eighteen loyal sailors into a small boat, which they humanely stocked with provisions, and leaving them to their fate while they themselves sailed back to their island paradise.

Undaunted, "Breadfruit Bligh" took command, doled out the food by mouthfuls, the water in careful quantities, and directed the steering of the frail craft during the three months they tossed at the mercy of the elements in the great gray waste of sea.

FEAR

"I don't enjoy my motor car," said Charles Adolphus Squires, "although it glitters like a star and has four handsome tires. For always, always as I ride I'm fearing some mishap; into a ditch the bus may slide and spoil my priceless map. The gas I carry may explode as I pursue my way, and strew my fragments down the road and up the verdant brae. I often lie awake o' nights and think up grisly scenes, where I collide with other wights, and smash our limousines. I see myself on stretcher borne from scenes of wreck and woe, while creditors stand round and mourn and figure what I owe." And fear is spoiling countless lives, the fear of dole ahead; like Charles Adolphus when he drives, we fake up things to dread. My nieces gambol by my door, they play with old dog Shep; they have no pimple, boil or sore, they're gay and full of pep. And I regard them with a sigh, with tears their sport I view; to-morrow all these girls may die, of mumps or Spanish flu. I have a dwelling, green and gray, the smoothest shack in town; "But storms will ruin it," I say, "or fire will burn it down." I wonder why we look for woe in every coming breeze; I wonder why we don't outgrow such dippy fears as these.

Colors That Attract Customers.

You may pack pills in a pale blue wrapper, but if you sell chocolates the best colors for the covers or boxes are red, orange, or bright yellow. A good rich brown is not to be despised, but a green or blue is useless.

Indeed, these colors will actually deter a purchaser, even though the contents of the package are of the highest standard.

Manufacturers are only just beginning to realize the importance of colors in the sale of their wares. Red and orange are warm colors; they excite enthusiasm.

Green is an excellent color for the walls of a room; so is pale primrose. These are soft, restful colors, and good for the eyes. You do not want a wall which constantly attracts the eyes, but you do want warm, bright, striking colors to attract purchasers to goods displayed in shop windows.

Notice, too, the matter of books—how many are bound in red and how brilliant are the wrappers in which most are shown nowadays. The salesman who studies colors and who understands them is the one who succeeds.

The Difference.

Economical Wife—"What's the difference if I make your shirts or you buy them at the store?"

Hubby—"The fit."