

Our Atlantic Salmon and How it Lives and Feeds

How Comes Up Our Rivers To Spawn—The Difference Between Our Salmon and Those on the Pacific Coast

Out of the dark, quiet depths of the cool, salt sea the Atlantic salmon lives in the midst of plenty. Strong and swift, he rushes to and fro, or up and down, wrecking havoc on the frightened schools of glass-like shrimp, the vast shoals of silver-white young herring, and wandering groups of slim, fast-moving sand eels which feed his lordly appetite. On the other side of the world, out in Pacific waters, are countless thousands of his kin, members of the same Salmonidae family, for the Atlantic fish belong to the *Salmo salar* while the Pacific salmon is of the genus *Oncorhynchus* and may be any one of four or five species, as, for example *Oncorhynchus nerka*, which, being translated, means the sockeye salmon, and *Oncorhynchus keta*, or the crum salmon.

East and west alike, the salmon is of prime importance to Canada. In British Columbia it is the basis of the most valuable fishery, from the dollars and cents standpoint, of all the many fisheries of the Dominion, while one or two species also give sport to the angler. On the Atlantic coast the fish is a source of livelihood for many commercial fishermen and as the King of Sport Fishes it attracts many anglers every year to the streams which it enters from the sea. East and west alike, the salmon's life story is full of interest, with many similarities in the biographies of Sal-

mon and *Oncorhynchus* and with some differences. There is similarity, for instance, in the fact that all the salmon comes in to fresh water to spawn in the same fresh water systems where they themselves were born. There is notable difference in that the Pacific coast fish spawn only once and then die on the spawning beds while the Atlantic salmon spawn several times.

Here, popularly told, is the life story of an Atlantic salmon, which, after feeding in the sea for a couple years or so on his royal fare of shrimps and sand eels and little hering has become big and handsome—a King among fishes. He lays by a plentiful store of fat within his body for he knows that the time will come when he must make a long, arduous, and foot-losing journey. So he plays about and feeds and grows strong and fat until instinct tells him he must begin the journey to the fresh water stream where he was born.

He no longer is hungry, but feels a strange urge within him to begin his travels. The spirit of his youth comes back and he longs for the joy of fighting the swift, turbulent waters near the ocean's surface and the store. He would swim in the fresh waters again.

He comes up from the cool depths into the waves, where it is brighter and warmer. He plays around, but

always nosing his way wherever the saltiness of the sea is lessened by the fresh water from the rivers, until, by marvellous instinct, he finds the mouth of the stream that was his early home. He does not go directly into fresh water at once, however, but makes his way slowly to the river estuary, where the salt water mixes with the fresh. With other of his race both male and female, on the same errand bent, he rambles and gambols back and forth, now seaward, now riverward, gradually accustoming himself to the change in water.

After playing about for a time in the estuaries and tidal portion of the rivers, the salmon finally heads boldup upstream. He swims through the broad reaches until, by his remarkable instance, he finds the mouth of the very tributary stream in which he was hatched. Up this he goes to where it narrows and the water becomes shallower. As fall approaches, the male and female fish, whenever they may be in sea, estuary, or river, prepare for the spawning by heading for the gravel beds in the riffles of the river. Great changes take place now in their appearance. They lose their bright silvery color, and the males develop great hooked jaws.

Choosing a clean bed of gravel at the bottom of the stream, each female salmon hollows out a trough by means of her tail and a twisting motion of her body. There she deposits her eggs—thousands of them—which are fertilized by the male fish and then covered up in the gravel by the flow of the river current. Here the eggs develop during the winter and in early spring they hatch out, when the tiny baby salmon are known as "alevins." Meanwhile, the parent salmon, lean and meagre after spawning, seek to make their way back again to the ocean. These survivors, known as "kelts," resume their former happy existence in the depths of the salt seas, feeding and growing, recovering their fatness and their silver coats. In a year or two, obeying their natural urge, they will return again to the rivers for another spawning. Individual salmon have been known to feed in the sea and spawn in the river as many as five times, and these, of course, grow to be very big fish indeed.

But to return to the alevins. Each of the new born fish has a yolk sac attached to its underbody which prevents it from rising much from the bottom of the stream and also contains the nourishment upon which the baby draws while it is still in this tender, helpless stage. Gradually, the sac is absorbed and the alevin takes on the shape of a true fish, having grown rapidly in the meantime. In this second stage of life the young salmon are known as "fry" or "parr," the latter name being given them because of the dark vertical bars which appear on each side of the body. Growing, but still tiny, they now swim actively up in the water, but keep their heads upstream so that they will not be carried down by the current and they greedily devour any minute animal forms that float near.

On this sparse food they grow but slowly and they must remain in the stream or river, sometimes for only two years but usually for three, and some for four or even five years, before they are in condition to go to sea. By this time they are like small trout in size, but marked with small black spots. Their scales become silvery because of the formation in the skin of what are known as crystals of guanine, and the vertical bars of the parr are covered up. When they have reached this stage of life the young fish are known as "smolts." By this time they have become exceedingly voracious, coming frequently to the surface to snap at anything that looks good to eat, and they no longer try to keep themselves from being carried down-stream.

Rambling toward the river mouth, they come into the brackish water. Here they linger for a while to accustom themselves to the saltiness and when they can endure it they scatter out to sea, rarely to be seen again by man until they are ready to return to the river where they were spawned. The case of the salmon is an instance of a fish which, reaching the deep seas, almost disappears from the knowledge of man until instinct fetches it back to the coastal waters and the rivers.

The Atlantic salmon's return from sea is usually made after two years. Sometimes it comes after only one year, and sometimes, not for three or four years. The salmon that come back after spending only one year in

DRAMATIC STORY OF LAST DAY OF PRINCE

Exiled Spanish Aristocrat Gives Details of Incident Leading to Tragic Death of Infante Gonzale.

PARIS, Aug. 28—A pathetic story of the tragic end of Infante Gonzalo, youngest son of the former King Alfonso of Spain, following a trifling automobile accident near Poertschach, Austria, last week, was disclosed to Havas by a Spanish aristocrat who saw the Infante literally bleed to death.

The Infante complained for several days before the accident about pains in his stomach and in his right knee, said the informant. Nevertheless, he spent the fateful day in company with his brother, Infante Juan, heir presumptive to the throne of Spain, and his father and sisters, the Infantas Maria and Beatrice.

Later in the afternoon Beatrice suggested a drive in the country to her brother. During the drive, in order to avoid a cyclist, Beatrice swerved the car and bumped it against a wall. Gonzalo was not injured except for a slight bruise on his right leg.

Beatrice telephoned home and another car was dispatched to pick them up. Gonzalo showed no ill-effect and without attaching great importance to the accident the royal family sat down to supper.

Suddenly Gonzalo complained again about pains and excused himself to lie down for a rest. As a precaution his temperature was taken and proved to be 95.

Meanwhile Alfonso, his father, had called a doctor but before the latter's arrival Gonzalo suffered an internal hemorrhage, due to the haemophilia from which he suffered and which could not be arrested. It was then 10.30 p.m.

Meanwhile the physician had reached the villa and informed the former king the case was desperate. A telegram was sent to the ex-Queen Victoria Eugenia, who was at Davos, Switzerland.

His father, brother, sisters and others of the family gathered around the dying Infante's bedside as Gonzalo slowly bled to death.

A priest administered the last rites of the church. Suddenly the youth's arms dropped. Infante Gonzalo had breathed his last.

TINY SPIDER WON BATTLE WITH SNAKE

BALTIMORE, Md., Aug. 28—An execution by the Society for the Prevention of Cruelty to Animals put an end to the death duel of a tiny black spider and a garter snake one thousand times its size in the basement of a Baltimore home.

The conflict had raged for four days when a representative of the society, stopping "this display of cruelty," snipped off the head of Egbert as a neighbor dubbed the snake. At the time the spider, no bigger than the snake's eye, was nearing a complete conquest of its foot-long natural enemy.

Dismayed, the little spider which had the snake securely in its web, fled the scene of the killing and today had been seen no more.

Science says there is no satisfactory substitute for a spanking. Nor for a shingle judiciously placed where a spanking lands.

"The modern poet never receive justice in this country", declares a critic. We regard this as a tribute to our forgiving nature.

The ocean are called "grilse" or flinders and are about five pounds in weight. Only the fish that have remained two years in the sea are entitled to be called "salmon" and they usually weigh ten pounds or more. The males mature before the females, and the grilse, or one-year-in-the-sea fish, are usually males.

VACATION TIME NO SIGNAL FOR BOY TO FORGET

(By James Herbert Goward)
This is Richard's and George's first summer in the city, and their mother is most anxious for them to have a good time. Until this year they have always had a place in the country. The country offers so much to a boy in the way of adventure. He can fish and hike and explore. There are broad views to rest the eyes and lazy days for lolling and dreaming. Such a vacation usually sends a child back to school in the fall, refreshed, morally, mentally and physically.

Knowing this, the mother of these two boys is far from happy. She feels sorry for herself and for them. And to make it up to them she has relieved them of all responsibility around the house. It being vacation time, they are not obliged to do anything they do not want to.

As a result, the boys already are beginning to show signs of boredom.

Such a vacation is unfair to the children, the parents and to the teachers. The children may gain in health. Primarily, that's what a vacation is for. At the same time however, they should not be allowed to unlearn what they already know. It's not a kindness to let them run wild or grow lazy. The set back costs them too much later when vacation is at an end, and they must conform at school and at home. A child may feel by them that it is not worth the effort of trying and the effect upon his morale may leave its stamp.

Another mother of my acquaintance has the right idea. She plans her children's days. Each day there is some one thing that they all do together. It may be cooking or sewing or painting the chairs or the backyard fence. Usually it is some occupation that takes an hour, or part of a morning or afternoon at most. It is work, but it is engaged in for fun.

It does not matter what a child learns, so long as he does not stop learning. Vacation activities should offer a complete change from year-round activities. The mother just described does not burden her children with household chores during the school season. She believes, what with homework and long hours in school, children have too little time for play and fresh air as it is. To engage in housework, to help mother, therefore, has become a special vacation privilege for her children. This gives her a chance to enjoy a vacation too. At the same time she generally manages to get her household into a state of repair and much hammering, noise and laughter.

EFFORT TO END WAR MADE BY BISHOP

Buenos Aires, Aug. 27—Roman Catholic archbishops of Argentina, Brazil, Chile and Peru united today in an effort to end the Gran Chaco war between Bolivia and Paraguay during the Eucharistic congress to be held here next month.

An appeal from the arch-bishop was sent to President Salamanca of Bolivia and President Ayala of Paraguay. Both responded, and said they would make every effort to seek an honorable peace.

Archbishop Copello of Buenos Aires is acting as chief mediator.

ALASKA IS LIKE MARITIMES, HAS TOURIST APPEAL

Nova Scotian Proprietor In Far North Country Returns After Visit to His Birthplace.

HALIFAX, Aug. 28—Visitors to Alaska fall in love with the country at first sight, Mr. J. G. Grant, proprietor of the Wrangel Hotel, Wrangel, Alaska, said here yesterday while he passed through here on his way back to Wrangel via Vancouver. It is thirty-five years since Mr. Grant left his birthplace, near Scotsburn, N. S., for Alaska, although he has made other trips east since that date, his last being in 1930.

Speaking further with regard to Alaska, Mr. Grant stated that there has been a very heavy tourist travel via Canadian National coastal steamers from Vancouver this season, many finding the trip from Vancouver to Wrangel on these boats one of the most delightful of travel experiences with the Pacific Coast as a background. The weather around Wrangel, he continued, during the summer, is about the same as in the Maritimes, there being no excessive heat. Many times he saw "Soapy" Smith the famous bad man of the north country in the days of the gold rush.

Washington—Soviet-American debt negotiations near total collapse.

Cooperstown—Mrs. Clift accuses Eve Coo of murdering Wright, identifies lethal mallet.

NOTICE OF SALE

To the Heirs and Assigns of JOHN COLWELL, late of the Parish of Southampton in the County of York and Province of New Brunswick, Farmer, deceased, and to the Heirs and Assigns of DAVID COLWELL, late of the Parish of Southampton in the County of York aforesaid, Farmer, deceased, and to KENT CURRIE of the Parish of Southampton in the County of York aforesaid, Farmer, and to All Others whom it may in anywise concern.

NOTICE IS HEREBY GIVEN that under and by virtue of the Power of Sale contained in a certain Indenture of Mortgage bearing date the tenth day of September, A.D. 1887, and made between the said JOHN COLWELL and MARTHA COLWELL, his wife, of the first part, and THE UNIVERSITY OF NEW BRUNSWICK of the second part, and duly recorded in the Registry Office of the County of York in Book E. 4, at pages 731, 732 and 733, under official number 3709, there will, for the purpose of satisfying the monies secured by the said Indenture of Mortgage, default having been made in the payment thereof contrary to the provisions of the said Indenture, be sold at Public Auction in front of the York County Court House in the CITY OF FREDERICTON and County of York aforesaid, on SATURDAY the SIXTH Day of OCTOBER, A.D. 1934, at the Hour of TWELVE O'CLOCK NOON the lands and premises described in the said Indenture of Mortgage as follows:—

"ALL that certain lot of land situated in the Parish of Southampton in the said County of York and described in the grant thereof to the said John Colwell under the Great Seal of the Province dated the First day of March, A.D. 1878, as follows: 'BEGINNING at a stake standing at the South-easterly angle of Lot number Eight granted to James F. Barker in Range Two, Block Three, thence North sixty-three degrees and 30 minutes west twenty-two chains and thirty-three links, thence South twenty-six degrees and thirty minutes west forty-five chains, thence South sixty-three degrees and thirty minutes east twenty-two chains and thirty-three links and thence North twenty-six degrees and thirty minutes east forty-five chains to the place of beginning, containing one hundred acres more or less and distinguished as the Eastern third part of Lots Number Five, Six and Seven in Block Three, Range Two.'"

TOGETHER with all the buildings and improvements thereon and the rights and appurtenances to the said lands and premises belonging or appertaining.

Dated at the City of Fredericton in the County of York aforesaid this 27th day of July, A.D. 1934.

THE UNIVERSITY OF NEW BRUNSWICK,

C. C. JONES, President,

Mortgagee.

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