



A NATIONAL FILM BOARD

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PROLIFE
Release

THE NATIONAL FILM BOARD OF CANADA, MONTREAL

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ADAMS RIVER SALMON RUN

NATURE'S YEARLY MIRACLE TAKES PLACE
AS SOCKEYE RETURN TO SPAWNING GROUNDS

British Columbia, fall 1958.

Once again nature's yearly miracle takes place as one of the greatest salmon runs in Canada's history reaches its climax in the Adams River in the interior of British Columbia. Part of the great Fraser River system, the Adams River pours down through a narrow granite-constructed gorge with terrific velocity. Above this canyon there are gravel beds where millions of sockeye come to spawn. The Adams River run is the most famous of the Fraser's many sockeye races.

Sockeye cease to feed before they leave the ocean, and going without food for weeks, they fight canyons and waterfalls and obstructions to return to the one particular stream where they were born, to spawn and die. Taking advantage of every pool and backwater, they rest for a while before going on to overcome the obstacles in their path.

Averaging 17 miles a day, sockeye that elude the fishermen's nets make the 300-mile trip from the ocean to the mouth of the Adams River in about 18 days. There is evidence that sockeye are guided by the sense of smell in fresh water, and by that means are able to return to the gravel in which they were born. The sockeye maintain their exact timetable as they swim upstream --- the fish that leave the ocean first are the ones that arrive early on the spawning gravel, spawn first and die even before the late-comers arrive.

At Squilax, B.C. along Little River (below the mouth of the Adams River) the Squilax Indians in their regalia welcome the big run. Local Indians in an old-time dug-out canoe demonstrate spear-fishing of salmon. Since the salmon do not feed after leaving the ocean they cannot be caught by hook and line but must be speared or netted. Spear fishing is usually done at night and the fire in the basket is to attract the fish and also help the Indians to see them. The Indians clean and split the salmon and hang it to dry on outdoor racks. After drying for about three weeks it is stored away for use during the winter.

At the mouth of the Adams River, crews of the International Pacific Salmon Commission are at work, tagging the salmon by inserting a small wire with a tag bearing a number in the fish's back. Another man records the number in a notebook and the fish is released. Later these tags are checked on the dead fish to ascertain the proportion of the run going to certain areas.

The International Pacific Salmon Commission was established in 1937 by the signing of a treaty between Canada and the United States. For the first eight years the commission was required to make biological and scientific investigations before making any recommendations. It was discovered that a certain location in the Fraser River called Hell's Gate, where rock slides in 1913 had almost completely blocked the river to migrating fish, was causing continued low production. Fishways of an entirely new type were designed by Commission engineers and the cost of \$1,000,000 shared equally by Canada and the United States. The increase of salmon in the few years since the fishways were built have already repaid the cost of the fishways many times. The Adams River sockeye run alone has 305 acres and each acre of gravel produced a crop of salmon worth \$120,000 retail value in 1954 --- the last cycle year. This year, from the Adams River and nearby Little River, came the greatest sockeye salmon catch in nearly half a century. Canadian and American fishermen netted 15,000,000 fish in salt water off the west coast, and yet an estimated 3,000,000 spawners remained to return to their birthplace.

Sockeye undergo some remarkable changes on their way to the spawning grounds. The males turn from silver to an unbelievably brilliant red and their heads become pea green. Their snouts become long and hooked and their mouths full of vicious looking teeth. The females don't grow a hooked snout but they do change their colours.

As they reach the spawning grounds, each female selects a home territory in the gravel. She excavates her nest by lying on her side and flapping her tail vigorously. The process is a slow one, and as she works the male that has picked her for a mate continues to fight off other males that are unattached. The long teeth are especially useful for this. With them they grab tails, shake vigorously and sometimes hang on like bulldogs. When the nest is completed the female deposits a portion of her eggs in the bottom, and at the same instant the male fertilizes the eggs with a cloud of sperm and a new generation is started. This process is continued over and over, each time slightly upstream from the preceding nest, until the female has laid all of her eggs -- somewhere between three thousand and five thousand. By the time the spawning is completed the fish have started to deteriorate and can no longer hold their own against the current. They all die after spawning.

The eggs will immediately start to develop and in the spring the inch-long fry will be swept downstream by the current to the lakes and larger rivers. The following year they will continue on the reverse route taken by their parents down the Thompson and Fraser Rivers, and disappear into the broad reaches of the Pacific. But in four years they too will return and the cycle will be completed once more --- nature's miraculous method of assuring survival of the species.

* 12,000,000

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SHOT LIST - ADAMS RIVER RUN - Prod. #58-323-22

1. LS Tilt down Thompson River, B. C.
2. Map showing Indian village of Squilax, Little River and Adams River.
3. LS Indians in canoe fishing with spears.
4. MS Group of Indians in regalia.
5. MS Salmon Princess.
6. CS Group Indians.
7. MS Indians in canoe fishing, one Indian spears salmon.
8. MCS Indian watching.
9. MS Second Indian fisherman spears salmon.
10. CS Salmon Princess.
11. MCS Indian fishermen with their catch.
12. MCS Indian woman prepares fish for drying.
13. CS Removing backbone.
14. CS Indian watching.
15. CS Woman cutting up salmon.
16. MS Woman carries salmon to rack.
17. MS Woman hangs salmon on rack beside row of drying salmon.
18. MLS Swiftly rushing water.
19. MS Fish in strong current.
20. MCS Fish swimming against current.
21. MS Fish resting in backwater close by rock.
22. CS " " " "
23. LS Area near spawning grounds.
24. MS Tagging teams, one man pulls in net.
25. MS Man picks fish out of net.
26. CS Fish is placed in trough, and tagged.
27. MS Fish is thrown back into water.
28. MS Another fish picked up for tagging.
29. CS Man's face as he holds fish.
30. CS Another man marking in notebook.
31. LS Tagging teams at work.
32. CS Sign "World's Richest 300 Acres -- Adams River Spawning Grounds".
33. MCS Fish in tank, showing changes that have taken place since leaving ocean.

- 34. CS Fish in tank.
- 35. LS Pan Adams River spawning grounds.
- 36. MLS Fish at spawning grounds.
- 37. MS " " "
- 38. MCS " " "
- 39. MS Two fish
- 40. MCS Two fish fighting
- 41. MS Two fish paired for spawning, pan to dead fish.
- 42. LS Adams River.