

# Hermit Priest Gives Talk On Life Cycle Of Salmon

By HELEN A. MITCHELL

Senior high school students gathered in the biology laboratory on Wednesday morning, November 26, to hear an illustrated lecture on the spawning of the pink (hump-backed) salmon by Rev. Charles Brandt of Merville, near Courtenay.

Father Brandt, a hermit ordained into the Roman Catholic priesthood in 1966, lives in his tiny hermitage built by hand of rough cedar planking, near the junction of the Tsolum River and Wolf Creek, which streams support a yearly run of pink salmon, in addition to coho and steelhead. He was trained as a biologist at Cornell University, majoring in ornithology.

In the summer of 1968 the Federal Fisheries Research Board began its pink salmon project on Wolf Creek, and Father Brandt was subsequently employed as assistant technician and guardian of the hatchery.

A fish weir was constructed on Wolf Creek where some of the fish were trapped, while the rest were allowed to continue upstream to spawn naturally.

During his time with the project, Father Brandt has taken some excellent slide pictures of the spawning, and of the fry, for the first seven months of the pink salmon's life cycle, which commences in September when the salmon move into Wolf Creek and ends with their migration the following April.

Five out of six males and five out of six females are released from the trap in the weir to spawn naturally in the stream gravel. The others are killed and spawned within a few minutes by technicians.

and marked, and identified when they return to the stream at maturity. The fry which were spawned naturally in Wolf Creek are also marked for future identification. Ten young women are employed at the Wolf Creek hatchery for this task. There is a certain amount of mortality from handling the fry.

The fry migrate at night. The hatchery tank where the fish have been held is turned over and the fry are released to swim directly to the salt water where they begin feeding. They return the following year, to complete a two-year cycle, spawn in their turn, and die.

Father Brandt estimates a 10% escapement from the gravel in the stream from natural spawning. Within the hatchery, however, the survival rate is about 95%.

Ten years ago about 100,000 pink salmon were estimated to have gone up the Tsolum River. By 1968, the number had been reduced to approximately 5,000. This year only about 200 were counted. Father Brandt and his fellow workers will be very interested to learn the results of the 1968 project described in his lecture, when the pinks return to the river next fall.

The hermit priest's talents are not confined only to his

skill as a biologist. He is also an accomplished bookbinder, having learned this art during his years as a Trappist Monk at New Melleray Abbey, Iowa. His workshop is in his hermitage where he does fine bindings and restoration work for various rare book collections on university libraries.

## Book Binder Too

He has recently completed the binding of 500 copies of "A History of the Union Club of B.C." by Paul Bissley, printed and published by Review Printing and Publishing Company Ltd., Sidney, and also 500 copies of Avis Walton's new edition of "About Victoria and Vancouver Island" published by the same firm.

Father Brandt will be binding 50 copies of Laura Traill's "Female Immigrant's Guide", in quarter-leather, with marbled end-sheets, in slip cases. This is the 1969-70 publication of Alcuin Society in Vancouver, which publishes some valuable Canadiana yearly. The Traill book is being hand-set by Will Hudson.

The gifted hermit has just completed restoration of a 1448 Czech Bible valued at many thousands of dollars. He has received a special grant to restore the Woodward Biomedical Library of the University of

British Columbia, and is contemplating the restoration of a copy of Vesalius' "De Fabrica Humani Corporis" for UBC, a rare 16th century work.

Father Brandt has written an article on restoration which appears in the current issue of "Amphora", the bi-yearly organ of the Alcuin Society.

YOU'LL ENJOY IT  
MORE IF YOU  
GIVE BLOOD  
BEFORE YOU GO.



December 4

## Fertilization

About a month after having been fertilized the first development of the embryo can be seen through the egg shell, called the "Eye" stage. Dead eggs are removed from the hatchery trays before they are placed in gravel boxes, and all eggs counted electronically.

The eggs are scattered over a six inch layer of gravel then layer after layer is added, building up to eight or nine layers of alternating gravel and eggs through which water is kept running continually.

By the beginning of December the eggs are ready to hatch, after which they are referred to as "alevins". Toward the end of February the alevins are "silvering up", and elongating. The sides gradually enclose the belly until they become entirely silvered and "buttoned up".

During this time the alevins have been living from their yolk sacs which contain protein, minerals, carbohydrates, and vitamins. They have no external food until they move down to salt water immediately on escapement from the gravel. They take in necessary oxygen through a vein in the egg.

When the alevins are about four months old they struggle up through their protective layers of gravel and become free swimming, and are then known as "fry".

## Weir Converted

The weir has been converted into a dam to catch the fry coming downstream. They work themselves over the screens into the trough and into a trap.

The tiny fish move out of the gravel towards the overflow of the weir where they are counted by being dipped out five at a time. They are then anesthetized so that they can be clipped