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## FOOD OF CUTTHROAT TROUT FROM REVELSTOKE, B. C.

by

J. R. Dymond

Herewith are presented the results of a study of the contents of the stomachs of forty-four cutthroat trout taken by Mr. A. Higgs in the vicinity of Revelstoke, B.C. in August and September, 1929. On account of the small number of stomachs represented in the collection, the shortness of the period over which the collection was made and the limited area from which the fish came, these results cannot of course be taken as indicating in any general way the food of the cutthroat trout but they are of interest nevertheless in giving a certain amount of information on the food habits of this species.

The specimens represented by this collection were from 7 to 13 inches in length. They were all taken above falls in creeks in the vicinity of Revelstoke, B.C. between Aug. 18 and Sept. 29, 1929, - thirty from Isaac creek, 8 from Frog creek and 6 from Canyon creek. Eighty-six percent of the contents of these forty-four stomachs consisted of insect material. Half of this consisted of larval insects secured below the surface of the water, and half of adult insects taken from the surface. Of the other 14 percent making up the stomach contents, practically all consisted of indigestible material such as small stones, pieces of wood etc. Scarcely any organisms other than insects had been eaten by these specimens.

### Aquatic Insects

By aquatic insects is here meant larval and other immature insects which the trout secured from the bottom and other situations below the surface of the water. This aquatic material consisted very largely of caddis worms and the nymphs of mayflies, the former being very much more abundant than the latter.

There were also a few nymphs of stoneflies.

Terrestrial Insects

A few adult or terrestrial forms of mayflies, stoneflies and caddisflies had been eaten by these trout but the bulk of terrestrial insects consisted of ichneumon flies, pentatomid bugs, dipterous flies, moths, ants, spiders, beetles, wasps, craneflies, sawflies etc. The total number of each of these kinds of insects found in the forty-four stomachs and the number of stomachs in which each sort was found is given in the following table.

<u>Insect</u>	<u>Total number found in 44 stomachs</u>	<u>Number of stomachs in which found</u>
Ichneumon flies	83	29
Pentatomids	66	26
Dipterous flies	53	27
Moths	36	15 resembled caddisflies
Ants	33	10
Spiders	29	23
Beetles	14	11
Wasps	15	10
Craneflies	14	7
Sawflies	12	10
Stoneflies	10	7
Mayflies	5	3
Caddisflies	5	5

FOOD OF DOLLY VARDEN

A few stomachs of Dolly Varden trout from the same region have been analyzed for comparison with those of cutthroats.

Only three of these were comparable in size to the cutthroats, averaging 10 inches in length. They were taken from Eleven-mile creek which flows into the Columbia river. Their food was practically identical with that of the cutthroats.

The food of four large specimens of Dolly Vardens from the Columbia river consisted entirely of fish. Three specimens 25 to 27 inches in length (6 3/4 - 8 lbs.) together contained 10 kokanees (land-locked sockeyes) 6 - 6 1/2 inches in length. One Dolly Varden of four pounds weight from Frog creek, below the falls, contained 1 Rocky Mountain whitefish 6 1/2 inches in length.

The introduced Eastern speckled trout and the rainbow (Kamloops) trout also occur in the same district and we have a few stomachs of these species from Mr. Higgs but the number is so small that it is impossible to be certain in what way, if at all, they differ in food habits from the cutthroat and Dolly Varden.