

The Rogue River Fisheries

Fall, Winter Steelhead Runs Reviewed

Chicken, Turkey Crossed To Make Hybrid 'Churk'

Beltville, Md. (Science Service)—A chicken and a turkey have been crossed to make the "churk," a bird as rare as hen's teeth.

This hybrid, the first of its kind, is not for the Thanksgiving table—only three are now alive. The father is a dark Cornish chicken, the mother, a white Beltville turkey.

The history-making cross of the two families of birds was achieved by Dr. Marlow W. Olsen of the poultry research branch of the U.S. Department of Agriculture here.

Has Long Neck

Dr. Olsen said the chicken-turkey cross has the long neck and the white skin of its turkey mother, and the general size and dark coloring of the feathers of its chicken father. Its long neck is feathered but without wattles. Its legs are like those of a young turkey.

Dr. Olsen said it would not be practical to produce the hybrids commercially, since they are very difficult to bring through the hatching stage and keep alive. Some 2,900 eggs were processed to produce the live birds.

All the "churks" have some defects, such as crooked legs or beaks. Another abnormality, Dr. Olsen said, is that the hybrid birds' feathers grow in a twist, probably because of unequal growth in the cells.

Weak Individuals

The hybrids are weak individuals, Dr. Olsen said. They are kept in a separate pen by themselves, because they would be pecked to death if mixed with other fowl, either chicken or turkey.

The "churk" is a silent bird. It has neither the "gobble, gobble" of the turkey parent nor the crowing of the rooster father. Dr. Olsen said it lets out a chirp something like a chicken, but only when it is disturbed.

The hybrids are all male birds, and unable to reproduce themselves. The reason for this is the different number of chromosomes in chickens (six pairs) and turkeys (nine pairs). The hybrids get a single set of chromosomes from each parent (six from the chicken, nine from the turkey). Thus they end up

with 15 chromosomes that cannot pair up and produce offspring. This means that a turkey and chicken would have to be cross-bred every time a hybrid is to be produced.

The "churk" was produced completely by accident, Dr. Olsen said. Geneticists have tried unsuccessfully to produce this cross-breed at Beltville. Drs. V. S. Asmundson and F. W. Lorenz experimented with hybrids of ring-necked pheasants, turkeys and domestic fowl, none of which ever hatched.

Offspring Always Male

Dr. Olsen's chicken-turkeys showed up in a batch of turkey eggs he had fertilized artificially from dark Cornish chicken stock in trying to produce parthenogenic, or fatherless, turkeys.

The fatherless turkey was originally bred by Dr. Olsen at Beltville. These turkeys, the offspring of virgin turkeys, are always male. In the experiment that led to the "churk," Dr. Olsen was hoping to encourage parthenogenesis in the turkeys by inseminating them with the dark Cornish chicken stock. The hybrids resulted, however.

Dr. Olsen said that cross-breeding would not be successful if ordinary turkeys and dark Cornish fowl were used to produce the hybrid. He selected stock that showed particular tendency toward parthenogenesis for his experiment.

Forestry Relations Director Retires

Salem—Lynn F. Cronmiller, public relations director with the Oregon Forestry Department, retired Wednesday after close to 37 years with the department.

Cronmiller, who is 70, became a deputy state forester in 1924 and served as assistant state forester and state forester before becoming director of publicity five years ago.

Cronmiller plans to operate a private forestry consulting business in Salem.

Anglers Take More In Fall Run Than Other Rogue Runs

(Editor's note: This is the second in a series of articles on the Rogue river fishery and its management. The articles are presented at this time because surveys of the Rogue basin looking to a water control program are nearing completion, and they may aid in understanding the Rogue, its fish life and proposed dams on the river and its tributaries.)

(The author, Cole M. Rivers, fisheries agent, Oregon state game commission, has been a resident of the Rogue basin for 18 years, making biological investigations for the game commission. He is one of the few persons considered an authority on the fishery in the Rogue, its problems and management.)

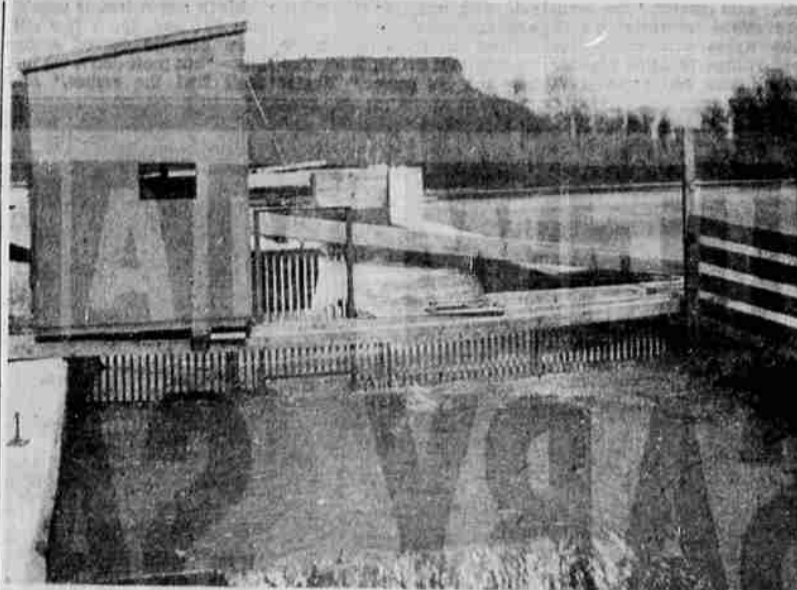
(Today's article is the second dealing with Steelhead and discusses the characteristics, use and management of the fall and winter runs of steelhead.)

By COLE M. RIVERS
Fisheries Agent
Oregon State Game Commission

Fall-run steelhead enter the lower Rogue when the river has started to cool off from hot, summer temperatures. A few fish enter the mouth and a mill around pools in the lower six miles of the river as early as late July, but a definite movement upstream does not usually start until the last week in August.

Fall steelhead are voracious feeders. They strike on many forms of tackle that resemble some type of food. They are fat and strong from feeding on an abundance of aquatic insects. When hooked they show their zest by a spectacular display of acrobatics.

Thousands of anglers pursue this run and more fish are taken than from any of the other runs in the Rogue system. To a large degree, the fall-run steelhead, along with the spring run, has made the Rogue a famous fishing stream, primarily because the



COUNTING STATION—The Gold Ray counting station near Gold Hill is used to count salmon and steelhead as they pass through the fish ladders on their way to spawning grounds of the Upper Rogue river. (UPI Telephoto)

fish are readily taken and show a preference for artificial flies. Another reason, as claimed by many anglers who fish waters all over the world, is that pound for pound they fight as hard, if not harder, than any other sports fish.

A high percentage of the fall run is taken by anglers. Most are caught in the lower canyon with the heaviest take around the Illahe-Agness area. Fair to good catches are made upstream through the canyon as far as Robertson bridge. Sample catch figures indicate that 25,000 were taken from the large 1959 run.

Fall steelhead are small fish. They average slightly over 17 inches with some as small as 10 inches in length. Weights average around a pound and a quarter with some weighing up to 7 pounds.

Small fish of this run are largely those that go to sea in the early part of their second or third year of life and return on their spawning run several months later. Larger fish are either those that migrate early to sea and return a year and a half later or those that are returning to spawn the second or third time.

That these small fish actually are going to mature and spawn has been questioned. There is evidence that a few are on a false migration, but most have been found developing to sexual maturity by late March or early April.

This run of steelhead shows a preference for tributaries in the middle section of the Rogue and, therefore, only a part of the run is counted over the Gold Rey dam. During a year with a peculiar water pattern, the run has been found using the main channel of the Rogue. Only a scattered few fish of the fall run use the Applegate or Illinois river systems.

The low ebb of fall steelhead that occurred in the recent 10-year period can be almost directly attributed to logging practices employed in the Rogue basin during the 1940s. Few tributaries throughout the mid-basin area escaped the destruction of cover, silt loads, and debris-choked channels.

The large 1959 run is believed to have resulted from (1) tributary recovery and soil stabilization, (2) screens over the turbine intakes at Savage Rapids, and (3) the occurrence of two preceding mild winters. All three factors, or combinations thereof, could have contributed to the large numbers of fish in that run.

Winter-run steelhead nose into the Rogue after sufficient rain has fallen to raise the river above fall levels. The main motivation of migration is sexual development.

Cold water periods through the winter months retard both the rate of sexual development and the rate of migration. When water temperatures are warmer than 40 degrees F., they move upstream. The warmer the water, the faster they migrate. When water temperatures drop below 40 degrees F., they stop in deep holes and refuse to move until temperatures rise again.

The first winter fish start up the river in November; the bulk comes in December, usually on a warm southwest storm. The run reaches the middle section of the Rogue in early or mid-January and peaks at Gold Rey in March. Winter fish migrate to nearly all portions of the Rogue basin that can be reached. Heaviest use for spawning occurs in mid and lower sections of the basin, with light-



FISH JUMPING—A winter steelhead jumps at the old fish ladder channel at the Illinois falls. Fish will be able to pass with ease over the falls through the new fish ladder which is being constructed by the Oregon state game commission. (UPI Telephoto)

est use in upper river areas. Branches of this winter run, called races, travel into the Illinois and Applegate river systems. The Illinois race starts early and continues through February and March. These fish are similar to the steelhead that are found in other coastal streams of Oregon. They average 7 pounds and a few are taken at 16 pounds or better.

Because of the unique features of the Illinois canyon from Kerby to the mouth of Briggs creek and the numbers and size of the fish, Illinois river steelhead produce the second most popular fishery in the Rogue basin. The Applegate race is a late runner with the bulk not showing until March and April. A few of the forerunners appear in the catch in late January and early February.

Rogue Steelhead
Rogue river winter steelhead are large fish which follow the normal 4-year life pattern of most coastal stream steelhead. Even those that return to spawn in their third year have grown to slightly larger size than spring and fall-run fish because they have spent from four to seven months longer in the ocean before returning.

Many of the late winter fish produce young that prefer to make their downstream migration to the ocean during their first year of life, resulting in an even longer salt water growing period than the spring and fall races.

The winter run makes up the largest part of the Rogue basin's steelhead population. Because of high water through the winter months, many of these fish are never exposed to anglers and a good spawning escapement is the general rule.

Heavy catches are made in the Agness-Illahe area, particularly when the run is stopped by cold water conditions. A reasonable harvest is realized by sports fishermen in the middle section of the Rogue when weather and resulting water conditions permit.

Portland-Eugene Freeway Opens

Salem—The final segment of the Pacific freeway between Portland and Eugene opened to traffic at 10 a.m. today, cutting travel time between the two cities to less than two hours.

The 25-mile Halsey interchange-Eugene section makes the distance from Portland to Eugene on the freeway 109 miles instead of 121 miles over old 99E, the original route.

Traffic will be uninterrupted on the four lane divided freeway except for a 5.9 mile section between the Halsey-Sweet Home interchange and Belts road where southbound traffic will be detoured along one northbound lane until next spring when improved weather permits completion of the unfinished sections.

Introducing for the first time in Medford

MIRACLE MUFFLER

Sure-Fit Compact Oval

MIRACLE PRICE

Any car, any year, any model

Save \$5 to \$15

MIRACLE GUARANTEE

You'll never have to buy another muffler for your present car. This is the most modern muffler today. A seamless, heavy-weight that is guaranteed for as long as you own your present car.

INSTALLED FREE IN FIFTEEN MINUTES

9.95

ANY CAR

exclusively at
8:00 A.M.-9:00 P.M. MONDAY AND FRIDAY
8:00 A.M.-6:00 P.M. OTHER DAYS • CLOSED SUNDAYS

12th and CENTRAL

SPring 3-6450

Chevrolet De Soto Dodge Edsel Ford Frazer Henry J Hudson Kaiser Lincoln

Mercury Metropolitan Nash Oldsmobile Packard Plymouth Pontiac Rambler Studebaker Willys

*Add \$3 for Buick, Cadillac Chrysler

AUTO TOPS
SURE-FIT
SEAT COVERS

MEMO TO ADVERTISERS



The Hallmark of Circulation Value

In the same way that STERLING on silver signifies a standard of known value, so is the A.B.C. emblem a symbol of integrity for the circulation of newspapers and periodicals. It means that circulation so identified is measured according to the rules and standards of the AUDIT BUREAU OF CIRCULATIONS.

The A.B.C. is a cooperative and non-profit association of 3,450 publishers, advertisers and advertising agencies. Organized in 1914, these buyers and sellers of advertising brought order out of advertising chaos by setting up standards for paid circulation and establishing rules and methods for measuring, auditing and reporting circulations.

Therefore, the work of the A.B.C., of which this newspaper is proud to

be a member, provides you with a direct and valuable service. You can buy advertising as you would make any other sound business investment — on the basis of well known standards, known values.

At regular intervals one of the Bureau's large staff of experienced circulation auditors makes a thorough audit of our circulation records. The results of this exacting audit show: How much circulation we have; where our circulation goes; how it was obtained; and many other FACTS that you need in order to know just what you get for your advertising dollars.

This audited information is published by the Bureau in easy-to-read A.B.C. reports which are available to our advertisers on request. Ask for a copy of our latest A.B.C. report.



MEDFORD MAIL TRIBUNE

NATURAL GAS EQUIPMENT CO

24 Mistletoe • SP 3-4831 • Medford

Natural gas will be here in the near future. Plan now to install a FORCED AIR FURNACE in your home or business.

FAST -- CLEAN -- Economical Heating!

INTRODUCTORY OFFER • 80,000 BTU's—Forced Air Furnace for \$189.95

FREE—Heating Estimate of Your Home or Business
See the GAS vs. ELECTRIC Heating Cost Chart

CALL US TODAY FOR YOUR FREE HEATING ESTIMATE

CALL SP 3-4831 For an Appointment in Your Home or Business

OPEN VETERANS DAY

Yes! BRUCE BAUER LUMBER Will Be Open for Your Convenience Friday, Nov. 11

DON'T FORGET — WE ARE ALSO CLOSED SUNDAYS UNTIL SPRING

— FURNITURE —

See the bargains in unfinished and finished furniture at BAUER LUMBER. The finest selection available and lowest prices too!

Bruce Bauer LUMBER COMPANY

765 SOUTH RIVERSIDE

"THE BUILDITORIUM"

Phone SP 2-6211