Idaho Wildlife Review

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NOTICE

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COVER

Two trumpeter swans, casualties of the last hunting season, recuperate in Idaho Falls' Tautphaus Park. 220 of the birds were counted during the mid-winter census in the Island Park country. (Bach Photo)

A PROBLEM OF TODAY . . . .

Idahoans have read and heard much during the past few years about the future of their state in regard to industrial expansion. The largest prime factor in the predictions of things to come is, as might be expected, the vast potential of water power , which can, with proper and careful development, open up vast stores of electricity.

Yes, much has been said and written, and more is sure to follow. This being the case, now is the time for us to look into the future. Safeguards must be prepared against an evil which inevitably follows industrial expansion as surely as night follows day. Far-seeing citizens must demand legislation adequate to guard the streams and lakes of the state from contamination so they may be productive of fishing recreation and as pure for drinking and other uses as they are now. The evil to be guarded against is pollution.

We in Idaho enjoy our fishing and get our water from streams which are relatively free of pollution, for with our large area and small population we have fewer sources of industrial or city wastes. This will not always be so, however, for pollution follows humanity in one form or another wherever man sets up his communities and industrial plants.

Some idea of the diversity of pollution sources may be gathered in this excerpt from a speech delivered before the North American Wildlife Conference in 1945. "The lumber producer who cuts every tree from steep hillsides, then burns his 'tops' and with them the ground-covering vegetation and humus, is setting the stage for . . . floods, droughts and loss of soil by erosion. The farmer whose stock grazes his fields to nudity and tramples the creek banks into muddiness . . . burns meadows and marshes is creating muddy streams which shift from flood to drought and thereby adversely affect all people who use surface or ground-water supplies. . . . The county engineer who gives contracts to his dredge-owning friends to convert good streams into ditches is adversely affecting everyone in his district. The manufacturer who pumps clean water from an impoundment and then turns waste waters back into a stream or lake is spoiling those waters for further use. The operator of sand or gravel dredges who takes away the stream beds and the coal mine operators who leave their shafts spilling toxic materials into streams are detracting from the public values of those streams. Canneries, tanneries, paper mills, villages and cities all do things which are detrimental to some kinds of further uses of our waters." Thus it may be seen that there are many apparently unconnected things which add to the pollution abatement problems faced by those who would return streams and lakes to their former levels of purity, productivity and usefulness.

Pollution seems to be an ever-increasing evil although we are learning more about its causes and cures all the time. Kenneth A. Reid, excutive director of the Izaak Walton League points out that something must be done for, "there is more pollution today rampant than there was 11 years ago and there was more 11 years ago than there was 25 years ago." Much of the fault he attributes, and rightly to human psychology, since "human beings are not altruistic en mass or in corporate bodies when it comes to digging down into their pockets and spending money for the benefit of the other fellow, which is what pollution control amounts to."

It was for this very reason that a bill was passed by the federal government during the 81st congress which provided authority and set aside funds for the setting up of pollution study groups in each state which are to find ways of abating this menace on interstate rivers and their tributaries.

Unfortunately pollution flows by gravity with the water and the upstream area isn't interested in benefiting the downstream region, if it is going to cost them any money. It was this fact that led to a demand for such a federal law as is cited above.

During the early development of our communities, the disposal of sanitary wastes became a serious problem which was solved only after public water supplies were developed, thus making the construction of modern systems of sewage disposal possible. Where sewage disposal systems have been installed, there has been a marked reduction of water-borne and fly-borne diseases, although the installation of sewer systems solved a number of local public health problems, the discharge of untreated wastes into our streams and lakes creates a problem of far-reaching significance that can be solved only through combined efforts of our communities, states, federal agencies and industries.

The rapid increase in population and the enormous expansion of industries during the last generation have resulted in increased volumes of sewage and industrial wastes in our water courses. The rapid expansion during this period has been responsible for a serious pollution of streams in the more populous sections of the state. Although a number of communities have provided sewage disposal plants for the treatment of wastes, such installations have not kept pace with the growth of the population.

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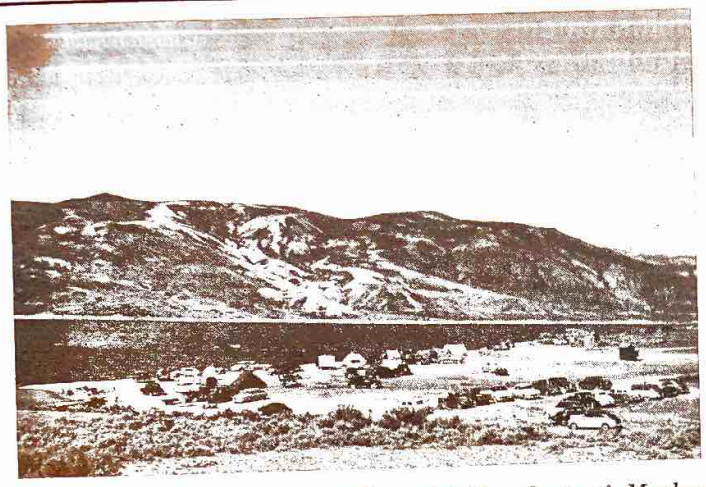

Cars, tents and boat trailers dot the shore of Mackay dam reservoir on opening day, 1950 as fishermen try their luck on its waters. Such scenes are common throughout the summer on reservoirs around the state.

Fisheries personnel use "shockers" to stun fish for census purposes on small streams. Data gathered by this method is used in determining populations of streams and possible need for plantings, improvement projects.

What Has Happened To Our Trout Fishing?

By VIRGIL S. PRATT,
Fishery Biologist

Trout fishermen all over the country have watched our stream fishing become poorer and poorer each year. They have seen the average size of the trout get smaller and smaller each season until many streams which used to give up 18 to 20-inch fish, now produce nothing but 4 to 6-inch trout or no trout at all. As the more accessible waters failed to produce the way they had in former times, new and more remote streams were opened up. This practice has gone on so long now that there are not too many good streams left to the average fisherman.

Fish and game departments all over the country are trying to rehabilitate the streams or to restore them to their former productivity.

Small rock structures aid to provide pool space for trout. Beaver have utilized this effort for a dam of their own.

However, before this can be done, their fishery biologists must first determine what is wrong with the streams, and what physical or chemical changes have taken place that could cause such a drop in the production of trout. Before they can do this, they must first learn the requirements of the trout and then determine in what respects the streams fail to meet these requirements.

As most fishermen know, trout cannot live in just any old stream or lake. They are very particular and unless the conditions in the water come close to meeting their needs, they either move out or die. For example, they must have cool water. Some species of trout will live in warmer temperatures than will other species, but in general, they do better and they grow faster at temperatures ranging from approximately 58 to 65 degrees. If the water becomes much colder as it usually does in winter, they become sluggish, feed little, and grow more slowly. If the water gets very much warmer than the optimum, they also feed and grow slowly. Often they die if they cannot find cooler water.

Where most of the other species of fish actually thrive in dissolved oxygen levels as low as 2 or 3 parts-per-million, trout must have 5 to 7 parts of oxygen per million parts of water. They are also quite exacting in their food requirements. While very small, they subsist on the minute plant and animal life in the water; as they get larger, their diet shifts to insects, both those swimming in the water and those that are continually dropping onto the surface. The larger trout continue to take insect food but develop a strong liking for other fish.

Another important requirement of trout is that of space. Just as the length of a goldfish is limited by the size of the aquarium, so is the length of a trout limited by the size and depth of the stream, even if all other factors are at the optimum. Seldom is a large trout found far from the shelter of a deep pool where he rules supreme and where he keeps the population down to his set limit either by

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Fisheries Biologist Forrest Hauck runs chemical analysis test at stream's edge to determine potentialities of stream for trout population, growth.

FISHES OF IDAHO No. 12

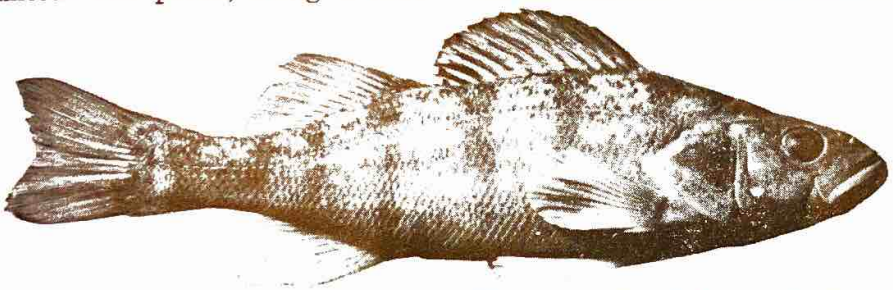
YELLOW PERCH

Perca flavescens (Mitchill)

By JAMES C. SIMPSON

Idaho Fish Culturist

The yellow perch, an introduced species into the State, has been widely distributed and, therefore, is well known to the majority of Idaho anglers. Its original range was in the Atlantic States south to South Carolina and in the North Central States south to Kansas. Although perch will thrive in cooler waters than do the basses and sunfishes, it has been placed in many waters which are too cold and the growing season too short and, as a result, the population has become stunted. The perch, being a lake



fish, does poorly when placed in streams.

Perch spawn in Idaho during April and May, but may spawn as late as June in some of the waters at higher elevations. The eggs are laid in a zigzag manner in long gelatinous adhesive bands or strings, several inches wide and may run to some feet in length. They are deposited in water over a sandy bottom where they settle to the bottom or become entwined around sticks or offshore plants. Spawning usually occurs during the night.

In 1948 there was an exceptional amount of wind at American Falls during the height of the perch-spawning season. That Fall very few young perch were found in the river below the reservoir dam. Undoubtedly the wind action on the reservoir waters caused an extremely heavy loss among the eggs and small fry. During the winter season of 1949, fishermen noticed a definite increase in size of the fish taken, thus indicating that the reservoir had been overstocked.

The color of the perch is a golden yellow, particularly on its sides. There are 6 to 8 broad, dark crossbars from the back to below the middle of the sides. The upper fins are dusky and the lower fins range from orange to bright red in the breeding males. The body is slender to moderately deep with the back arched. The head is long with a concave profile above the eyes. The spinous and soft dorsal fins are separate. The pelvic fins are thoracic in position.

Perch seldom exceed a length of 12 inches and a weight of one pound in the majority of the waters of Idaho. Tom Mizer, Conservation Officer at Hailey, reported one specimen taken from Magic Reservoir in 1947 weighed 4 pounds 14 ounces. In Lost Valley Reservoir during 1950 the average size of fish taken was 7 to 9 inches in length and 4 to 6 ounces in weight. Perch are entirely carnivorous, feeding on the young of their own species as well as those of other fishes, and on insects. They bite readily on almost any bait and can be taken any month of the year. It is a popular winter fish in American Falls Reservoir. It has become so numerous in Lost Valley and Magic Reservoirs that fishermen are allowed a bag of 50 fish. As a food fish it is rated as one of the best of the pan fishes. Its flesh is white, firm and of excellent flavor.

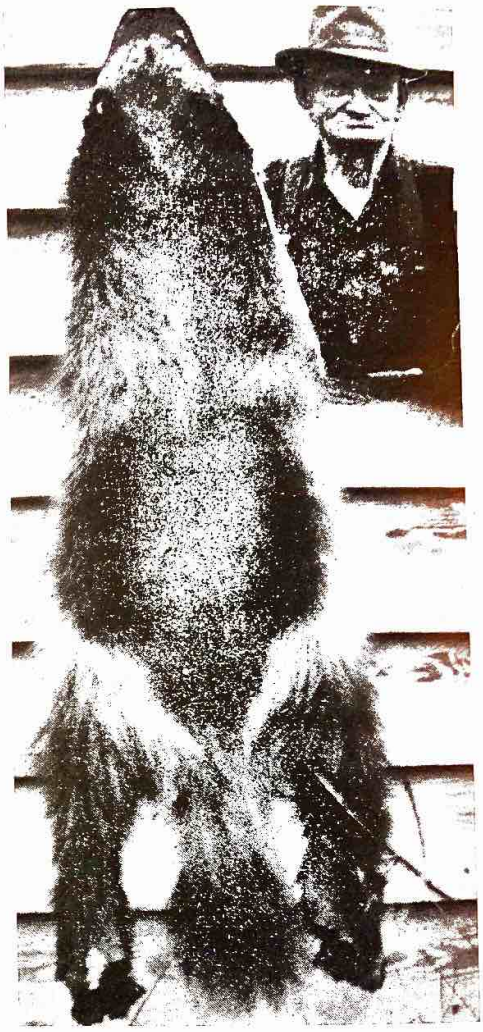
Animal Studies Made

(Continued from Page 4)

of Dr. Fichter; Wayne B. Whitlow, instructor in biology at Pocatello high school; Carl Johannessen, graduate student at the University of California; Dr. R. A. Lyman, director of student health and professor of zoology at ISC; Dr. A. E. Taylor, associate professor of chemistry; and Chapman Leek, ISC student.

Vegetational studies, initiated under the direction of Dr. Ray J. Davis, professor of botany at ISC, were supervised by DuWayne L. Goodwin, graduate student at Washington State college and former ISC assistant professor of botany, who headed the botany field party. Hal Davis and Tom Newkirk, students at ISC, assisted Goodwin.

Bonner Trap Yields First Wolverine Pelt Taken in Many Years



The first wolverine caught in Idaho in many years was found in a trap Oct. 20, 1949, by 72-year-old John Caus near Johnson Peak in Bonner County, in a home-made coyote trap. When found, the animal was emaciated from several days in the trap and weighed only 22 lbs. This substantiated at least two reports of sight records within 25 miles of Johnson peak. The skull and leg bones were purchased for the University of Idaho Research Unit collection for $10 by Big Game Biologist, L. W. Pengelly, Coeur d'Alene.