FISHES OF IDAHO No. 11 BLACK CRAPPIE Pomoxis nigro-maculatus-LeSueur

> By James C. Simpson Idaho Fish Culturist

The black crappie, a species introduced into Idaho, has done well in many of the waters of the State, particularly in northern Idaho. Unfortunately, however, careless planting has placed the species in waters where it could not be expected to thrive. Its preferred habitat is comparatively clear lake water with interspersed weed beds. This fish is commonly called "croppie". Other common names are calico bass and strawberry bass.

Spawning takes place when the water warms to about 65° F., usually in May and June. Like other members of its family, it makes nests out of sand or vegetation in which to lay its eggs. It is

Biologists Tour State With Chukar Expert

The sagebrush plains and surrounding mountain country of southern Idaho held the spotlight Dec. 3-10 as Nevada Chukar par-tridge expert Harold Peer accompanied bird biologists Alvard Kiler, Charles Blake, Elwood Bizeau and Robert Salter on a habitat survey.

Several likely Chukar areas were surveyed, with open brush-covered areas interspersed with rocky bluffs near watercourses coming in for the major share of the interest. Especial emphasis was placed on locating high hills accompanied by a rapid rise in elevation.

The Chukar, a native of Karachi, India, must have special habitat for survival needs. Idaho's lava-strewn foothill areas somewhat resemble the native habitat of the birds. Cheat-grass, which grows in abundance throughout the state, is one of the birds' favorite foods.

Plantings of the birds, first of which were introduced into Idaho in 1939, have proved only partially successful to date. The greatest measure of success has been experienced with Chukars released at Squaw Butte; on portions of the Raft river near Albion; and an area north of Carey. To date 2734 birds have been released in the Gem state, most of which did not survive due to apparent lack of knowledge of the habitat needs. This was the reason for calling in Peer, who understands the bird's needs and has had good success with his plantings in Nevada during the past several years.

Sites having habitat and terrain suitable for the survival of Chukars were chosen for future release

sites by the field party.



carnivorous in its food habits, feeding principally on insect larvae, crustaceans and small fish.

The body is deep and much compressed laterally; the head is large with the forehead somewhat dished. The spiney dorsal fin is characterized by having seven or eight spines. It has its origin slightly forward of a perpendicular line drawn from the origin of the anal fin. The color is silvery tending to white along the ventral region. The body, caudal, anal and dorsal fins are covered with black or dark green splotches. Although the weight of the fish taken by anglers is usually one pound or less one fish taken from Lake Lowell in 1948 weighed three pounds.

The black crappie is one of the finest panfish found in the State. It will take bait such as worms or will rise readily to a fly. Most fisherman prefer to use a yellow streamer fly in fishing for it. One must exercise care in landing a fish when hooked, for the mouth is very tender and the hook will tear out easily. Several lakes in the state have crowded populations of crappie which have been caused by selective fishing; that is, removing only the larger fish. In so doing, the predator fish have been taken out leaving too many small fish for the available food supply.

The osprey, or fish hawk, may be seen along any of the larger rivers of Idaho.

Chinook Plantings Prove Their Worth As First Fish Return

Planting of Chinook salmon in the Clearwater river and its tributaries during the past three years is apparently paying off in reestablishing the runs once almost completely cut off by the building of Lewiston dam, Fish Culturist J. C. Simpson reports.

A fish census taken during the fall months at the fish ladder at the dam to determine the size of the year's fall Chinook run showed 11 fish, averaging between $2\frac{1}{2}$ and five pounds, had come through the

ladder during the fall.

"This would indicate that perhaps we are on the right track in our belief that plantings in the streams would be as effective as natural increase in reestablishing

the runs," Simpson said.

He noted that the fish counted this year are probably exceptions to the four-year-old rule for spawners and that the real test of the program would come next year when the majority of the fish should return to their home stream to spawn.

Blueback Plants Maintained With Annual Egg 7ake

Blueback (Kokanee) salmon spawning operations on Granite creek and the Clark Fork river, tributaries of Lake Pend Oreille, had supplied 922,944 eggs during the first two weeks this year.

The operations began Nov. 14 and continued late into December. The Granite creek trap was abandoned Nov. 18 because of rough waters on Pend Oreille lake which interferred with the operations.

Eggs taken this year were sent to Clark Fork, Sandpoint, Twin Falls, Hagerman and McCall hatcheries for hatching and distribution to lakes throughout the state.

Plantings were made in Priest, Pend Oreille, Big Payette, Warm and Coeur d'Alene lakes and Anderson Ranch Dam and Salmon Falls reservoirs this year.

The fish furnish some of the best fishing and eating pleasure to be had in Idaho. They feed on microscopic life in the water and therefore do not necessarily compete with large trout for food. They also furnish food for other trout, especially Kamloops and Dolly Var-

Antelope Population Grows in Some Areas

Idaho's pronghorn antelope population is on the increase in certain areas, comparison of figures in the 1950 aerial census with those gath-

ered in 1949 shows.

The 1950 census, unlike that taken in 1949, was carried out only in complaint areas in the Big Lost River, Challis and Pahsimeroi ranges, where total populations showed an average increase of 11.06 per cent during the twelve months since the state-wide tabulation in 1949.

The 1950 census was carried out to determine population trends in the areas as a guide for trapping operations carried out during the fall, Big Game Supervisor P. J. McDermott said.

In the Big Lost River range, where 1949 census figures showed 1286 animals, a total of 1499 were counted during the 1950 count.

den which are found in Pend Oreille lake.

The Blueback, like other Pacific salmon, dies after spawning. Carcasses of the spawners are salvaged by fisheries division crews and used for fish feed at the hatcheries. About ten tons of carcasses are expected to be salvaged this year.

Herds in the Challis range had increased from 717 animals to 792 during the same period, and 1175 animals in the Pahsimeroi range were counted in the latest tabulation as against 1106 in 1949, Mc-Dermott noted.

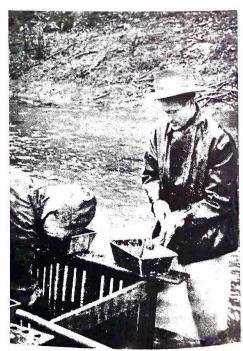
Idaho's total antelope population in 1949 was 7708, of which 960 were in the Owyhee area; 6729 in the Lost River drainage; and 19 in the Raft River area.

1950 population counts in the Owyhee, Malta and Holbrook areas showed 1294 in the Owyhee; 62 in the Malta region; and 19 in the Holbrook district. Much of the increase in the Owyhee area may be accounted for by the animals transplanted during the fall of 1949, when antelope trapped in the Birch Creek area were transplanted to southwestern Idaho, and by the migration of herds in the Nevada border area across state lines.

Herds in the three complaint areas were reduced considerably by hunting pressure during the 1950 season, when 539 of the animals were killed. Permits issued in the nine district areas of south-central Idaho totaled 700, of which 665 were used by hunters. A kill of 319 bucks, 190 does and 30 fawns gave the men a success ratio of 81 per cent.



A fisheries division crew moves the live-box toward shore as they prepare A fisheries aivision crew moves that the toward shore as they prepare to take spawn in Blueback salmon spawning operations on Granite creek. The trap at this site had to be abandoned Dec. 14 this year because of storm conditions trap at this site had to be abandoned transportation of the eggs taken. (Morris



Coeur d'Alene hatchery Supt. Ed Langworthy strips eggs from Kokanee salmon into holding pan. Over 2,000,000 had been taken by mid-December.



Fisheries biologists fill gunny sack with Fish Tox in preparation for poisoning of lake to remove rough and trash fish. Lake will later be planted with game fish to provide more and better fishing in area.

Trash-Fish Eradication Improves 11 Ponds in 1950

The third-year program of lake improvement work, started by the fisheries division of the Department of Fish and Game in 1949, saw seven lakes, a Boise park lagoon. a farm pond and two ponds or sloughs treated for eradication of undesirable fish so that they might be planted with game fish.

The undesirable species to be eradicated in these projects are generally rough, or trash, fish, some of which have been introduced into the waters by fishermen using live-bait minnows. Stunted game fish, such as large-mouth black bass or bullhead catfish introduced into a lake which does not offer suitable habitat for warmwater species, also rank high on the eradication list. These rough fish compete with the desirable species for food, space and cover, and in some cases are predacious on the game fish.

Rotenone, toxic only to coldblooded animals, is the toxicant used in these projects. Spread through the waters behind motor boats or sprayed in the shallow areas, it kills the fish by suffocation. The dead fish are generally left in the treated water where they decompose and fertilize the lake.

Surveys made by fisheries biologists determine the storage volume, and the physical, chemical and biological characteristics of each lake so that the concentration of fish-toxin to be used may be determined. Other factors taken into consideration are the temperature, percentage of acidity or alkalinity, amount of aquatic vegetation, turbidity, presence of springs on the lake bottom, amount of dissolved chemicals in the water, and species of fish to be killed.

The presence of unknown physical factors at the time of treatment may make it impossible to completely kill all the trash fish with the first dosage. It then be-

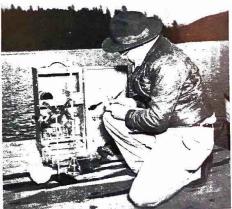
comes necessary to re-treat these waters at a later date. They will, however, provide enough fishing in the interim to pay for the cost of re-treatment.

Bodies of water treated during 1950 included Stone reservoir in Oneida county; Brush, Solomon and Smith lakes in Boundary county; Elk Creek reservoir in Clearwater county; Portneuf reservoir in Caribou county; Oakley reservoir in Cassia county; Julia Davis lagoon and Parkinson pond in Ada county; Musser slough in Canyon county; and Hardin slough in Gem county.

Undesirable types of fish eliminated in these waters included carp, suckers, chubs, shiners, stunted bass, bullheads, and

squawfish.

The 1950 work of the fisheries division in lake improvement brings to 16 the number of ponds, lakes and reservoirs so far treated in the program.



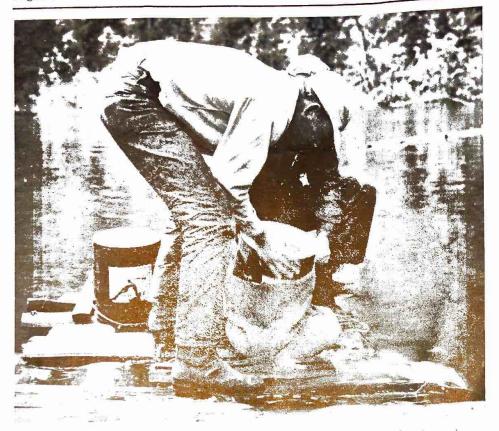
Biologist Tim Vaughan tests water samples to determine concentration of Fish Tox necessary to rid lake of undesirable fish. Tests also provide information on acidity or alkalinity of water.

Federation Meeting

(Continued from Page 5) final recommendation to the U.S. Fish and Wildlife Service asking for a waterfowl season starting October 6, 1951, and continuing through December. A reduced bag limit was offered as incentive to the longer season.

Convention members proposed the 1951 fishing season and bag limit remain the same as this year. Continuation of the present ban on shooting of hen pheasants was asked.

Legislative proposals urged (Please turn to Page 14)



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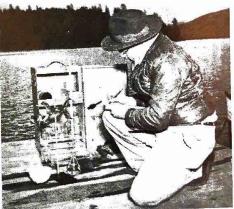
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