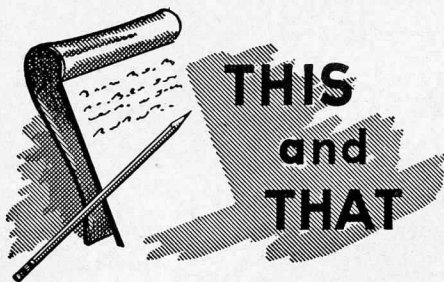


OREGON STATE

GAME COMMISSION BULLETIN

MAY, 1956





After skipping the Sandy River in 1955, the smelt showed up this year on March 29 and ran until April 11. This is the longest period for the run since 1949, when it lasted from March 24 to April 9.

There were 34,419 persons buying non-commercial smelt dipping licenses at fifty cents each from the Game Commission. Revenue from these licenses is earmarked for improvement of the Sandy River fishery. The highest number of smelt licenses sold during any one run was 59,503 in 1953. That year the run occurred from April 19 to 29.

* * *

Angling season for lakes in national forests in the Cascade area will open on Saturday, May 26. This includes East and Paulina lakes, as well as Diamond Lake, which is opening after being closed for a year following killing of the trash fish in the lake.

* * *

The annual meeting of the Western Association of State Game and Fish Commissioners will take place June 7 to 9 in Vancouver, British Columbia. Members of the association include the fish and game departments of the eleven western states and the province of British Columbia.

* * *

Copies of the 1955-56 game code are available for distribution from the Game Commission. The code is a compilation of legislative acts relating to game and game fish.

* * *

FAWNS—Cute and helpless appearing but they should not be picked up for pets. Most of the time they have not been deserted when seen alone. Mother has just gone for food and thinks she has successfully hidden her child—so don't disappoint her.

COVER

Fish counting station at Winchester on the Umpqua River. Records kept here provide valuable information on the extent of salmon and steelhead runs each year. (Photo by Ron Shay)

Oregon State Game Commission Bulletin

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MIRIAM KAUTTU, *Editor*
H. C. SMITH, *Staff Artist*

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APRIL MEETING OF THE GAME COMMISSION

The Oregon State Game Commission considered the following matters at its meeting on April 13 in Portland:

STRIPED BASS AND SHAD ACCESS: Authorized investigation of possible access projects for striped bass and shad fishery utilization.

JOHN DAY VALLEY: Authorized development of dredge ponds for spiny-ray and trout fishery.

FORT STEVENS: Authorized project for construction of Columbia River south jetty access road to open new fishing area to public use.

SIUSLAW RIVER: Exercised option to purchase for \$2,000 tract of land between Cushman and Tiernan to provide boat access.

ROGUE RIVER: Authorized development to provide boat access at Ben Hur Lampman Park.

McKENZIE RIVER: Authorized \$1,400 for development of boat access at Rennie Landing.

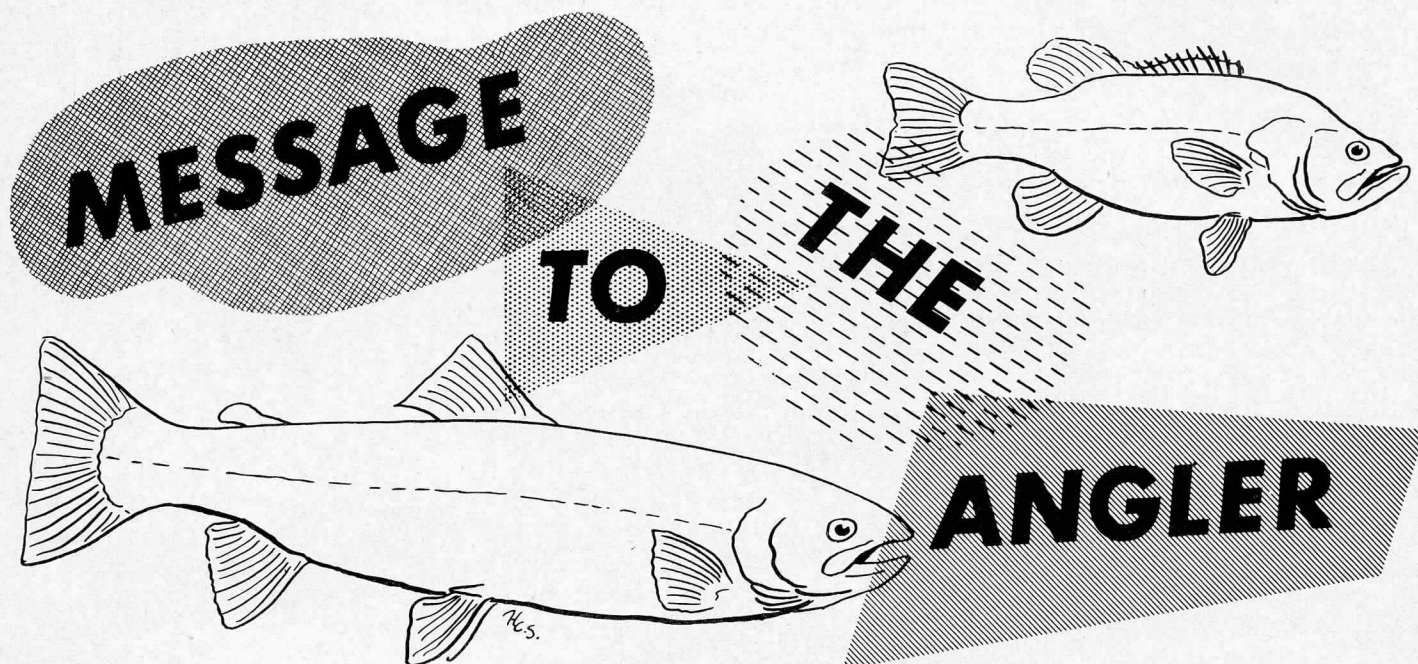
PHEASANT EGGS: Agreed to furnish 4,000 surplus pheasant eggs to Wisconsin Conservation Department in consideration of future exchange of game bird eggs desired by the Commission.

CAPITAL OUTLAY: Authorized purchase of hay baler for Hermiston game farm.

NEXT MEETING: Will be held Friday, May 11.



EUROPEAN GRAY PARTRIDGE being released near Peterson Butte in Linn county, the site of the first successful pheasant releases in 1881. The site will be stocked with 100 pairs of partridges, offspring of birds hatched from eggs shipped from Denmark in 1949 and 1950. The released birds will be kept under observation the year around by the Oregon Cooperative Wildlife Research Unit to find out how well they adapt themselves to this area. All the birds will be banded either on the wing or leg (sometimes both), and each male will have a small plastic tab on the back of its head to make identification in the field easier.



By P. W. SCHNEIDER, Director

WITH the recent opening of trout season, many Oregonians are again engaged in utilizing a magnificent natural resource which, to a degree, is taken for granted by most of us as interested anglers. The thousands of individuals who throughout the summer and early autumn will frequent the streams and lakes of Oregon will contribute substantially to the economy of the state as well as improve their own health and happiness.

There is every reason for the angler to look with pleasure to the fishing season for Oregon is blessed with one of the great fishery resources of the nation, providing a wide variety of outstanding and unique angling opportunities. From the Alpine lakes of the high Wallowa Mountains to the estuaries and shores of our Oregon coast, the angler is confronted with a diversified opportunity of angling. Both typical cold-water trout and salmon, as well as warm-water species common to other parts of the nation, occur in waters to which they are adapted throughout the state. Extensive steelhead trout and salmon waters are here found from north to south along our coastal area and to our eastern border in tributaries to the Columbia and Snake Rivers, and most of the species of trout and charrs of North America are available in Oregon waters suitable for them. Oregon has in her fishery resource a heritage of which

we can be proud and one which demands careful husbandry to assure its maintenance in future years. There are tragic evidences of serious impairment of this resource through past abuses but more recently there have been encouraging signs of sincere efforts to avoid such damage wherever possible. To assure maintenance and improvement of this resource many factors must be considered.

Anglers Increase

During the calendar year 1955, over 322,000 citizens of Oregon and other states were issued licenses to angle for our game fish. In 1943 the total number of anglers was 133,000. This increase in little over a decade has meant greater drains upon the resource. Today there are over 189,000 people fishing Oregon waters who were not fishing them 13 years ago. At the same time this increased interest is resulting in a greater consciousness of fishery values and consequent public interest in its welfare.

A successful fisheries management program is not a spontaneous or accidental process. The management of such a resource is a complex, expensive and varied function involving the coordination of numerous technical, administrative and policy factors. Many years are required to develop and refine a program of this character. Although we feel that Oregon has such a program, there are

many problems incident to carrying out a modern fishery management program which in one way or another have an impact upon the maintenance of fish life in the public waters of our state. Basically, those general land and water use practices which result in affecting the capacity of our waters to sustain aquatic life are of most importance to you as an angler. Many past uses of our basic resources of soil and water have tended to affect detrimentally Oregon's fish life. There has developed, however, in recent years a greater consciousness and understanding of the relationship of these activities to the fishery resources and encouraging results are beginning to emerge as a result of corrective measures being taken by both private and public groups and agencies.

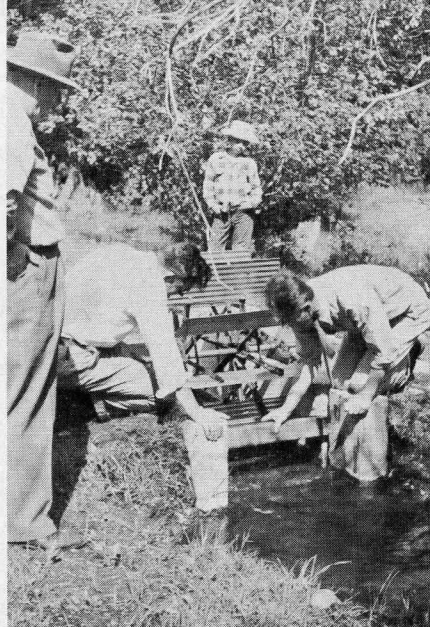
Modern Management

The Game Commission has promulgated the most active fishery management program in its history. In recognition of the vast social, recreational, and economic values in the sports fisheries of Oregon, there is under way a modern and extensive program. The fishery division of the Commission is staffed with experienced and skilled personnel equipped to execute an extensive program geared to modern-day needs. This program embraces a modern system of 16

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An attendant on duty at the Winchester fish counting station.



One of the new rotary screens installed in the John Day area.

Original with the Oregon game department are fish racks like this for transportation of fish fry in tank trucks. Conceived and developed by fish liberation personnel, Reino Koski, Ken Lehto and Lloyd Smith, the racks have been in use for a year and have reduced considerably fry loss during transportation. The racks make it possible to have the fish distributed evenly in the tank instead of concentrated on the bottom. The fish are unloaded by lifting out the racks, thus eliminating extra handling. A tank load can carry up to 150,000 fry, with each rack holding about 5,000.



MESSAGE TO

(Continued from Page 3)

hatcheries in which the best possible hatchery product is produced through the skills of experienced fish culturists. A system of stream inventory and surveillance has been developed in order to formulate and maintain an accurate knowledge of the pulse of the various fish populations in both streams and lakes. Although artificial supplements to natural propagation are a recognized adjunct to maintaining our fishery resources, the primary importance of natural environment cannot be replaced. For that reason continuous and increasing attention is given environment as a fundamental and dominant element in the Commission's policy of the program. Facilities for the distribution of hatchery fish have been improved and increased in order that maximum and timely distribution of fish can be carried out. The installation and maintenance of screens in the many small diversions over the irrigated sections of the state have resulted in effectively protecting downstream migrant fish, which are so important to the future of sea-run populations. Diligent attention to stream clearance is a continuous activity of the department.

Diversification

Considerable emphasis has been placed upon a diversification of our fisheries through the careful introduction of several new species which will enhance even further the angling opportunities of Oregon. The technical staff has under way a continuous and careful evaluation of the effectiveness of the numerous phases of the Commission's program in all areas of the state and where improvement through modification or refinement is indicated such changes are promptly made. Water development projects, including at least 15 potential major hydro-power installations, receive careful scrutiny with a view to minimizing damage to fish life. Lake rehabilitation, a management technique being more widely employed today, is restoring many waters to maximum production. Through the use of this management tool, the Commission has improved the productive capacity of 36 lakes, totaling 7,767 surface acres, and 1,014 acres of tributary streams since first starting the use of this procedure on waters contaminated with undesirable species or unbalanced populations.

With the increased importance and interest of the sports fisheries to more and more people of Oregon and with

THE ANGLER

more intensive water and land use programs, the problems associated with maintaining these resources become greater. Every angler should be interested in those activities and factors which are related to his stake in the fisheries. Representatives of the Oregon Game Commission are anxious to explain pertinent aspects of our program and it is hoped that all interested anglers will make it a point to become informed regarding the many aspects of the fishery management program and the problems confronting the Commission in maintaining this important value in Oregon's economy.

In the course of our use of the fisheries, we have as a part of that privilege as licensed anglers certain responsibilities which are a part of good citizenship. The growing problem of access to the public waters of the state is one which must in part be solved through our individual conduct. The securing of an angling license grants no privilege to trespass upon private property and the respect of the property rights of others will go far in aiding this situation in many instances. The Commission's program of securing access is moving along and its evidence will be observed on numerous streams of the state this year.

Angling regulations may at times not agree with what we as anglers feel should be in effect. Respect for these regulations, however, and a serious inquiry as to the reasons for their existence will aid in improvement of angler success in future years.

Vigilance on the part of all anglers to factors obviously destructive to fish life and their prompt reporting to appropriate authorities will prove of great assistance in the minimizing of such dangers to fish life.

The Commission's investment in the fishery management program is financed solely by the license holder. It is your program. Its success depends not only upon the number of dollars but upon the public support and recognition of the very significant place of fishery resources in our economy and way of life. It is the earnest desire of all of us in the department that you have good fishing and the fullest enjoyment of this great resource in 1956. It is further our premise that this resource can be increased in magnitude, as it must, to meet the growing demand for its use. To that end the Commission's objective is set.

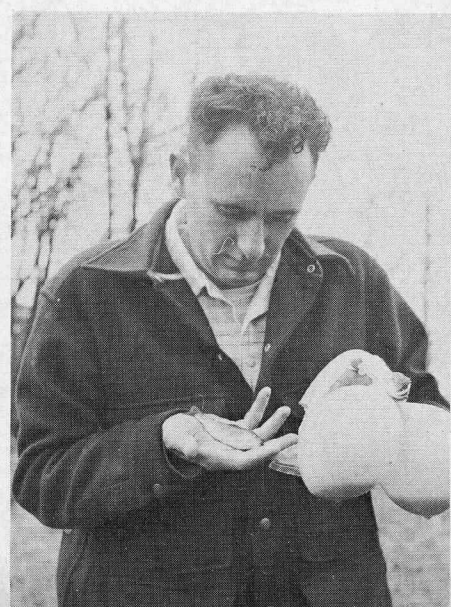


Game Commission personnel try out new balloon method for testing fish loss in turbines. A small plastic capsule containing calcium hydroxide is inserted in a balloon with a small amount of water to dissolve the glue sealing the capsule. The collapsed balloon is tied to the outside of a thin lightweight bag containing live fish. The bag, weighted down with a paper sack of sand, is dropped into the turbines. By the time the bag of fish reaches the raceway below, the capsule has dissolved and the resulting hydrogen gas inflates the balloon, bringing the bag of fish to the surface. Sometimes two balloons are used for each bag to assure better recovery. This method was developed by Ivan Donaldson, biologist with Corps of Engineers.

Fishery agent scooping up sack of fish below turbines during recent test.



After their trip through the turbines, fish are removed from sack and examined.



CRAPPIE FISHING

THE white crappie is one of the most widely distributed warm-water game fish found in Oregon waters. Although it is especially abundant in a number of coastal lakes and lakes in the flood plain areas of the Columbia and Willamette rivers, it consistently represents less than five per cent of the warm-water species in the angler's creel. The black crappie is also found in many of the same areas, but it appears to be much less abundant.

Since the crappie constitutes less than five per cent of the warm-water game fish caught by the Oregon angler, in contrast to the large concentrations of this species in our warm-water lakes, it is obvious that the catch could be materially increased if the angler were to learn more regarding its life history and feeding habits. In order that the Oregon warm-water game fish angler may enjoy a greater harvest of the white crappie, a few highlights of its life history and information on the most successful fishing techniques are offered here.

The white crappie in Oregon may attain a length of 19 to 20 inches and a weight of 3½ to 4 pounds. Such fish are extremely rare, however, for the average catch will consist of fish from 6 to 9 inches in length with an occasional 12 to 14-inch specimen. Creels of crappie in excess of 9 inches in length are not uncommon in Owyhee Reservoir and Siltcoos Lake.

Information obtained from test net sets in the Columbia and Willamette sloughs and flood plain lakes indicate that the crappie is established in almost every one of these bodies of water. Such reservoirs as the Owyhee, Cold Springs, and Fern Ridge, also support populations of these fish. Owyhee Reservoir is especially known for its yield of large crappie. Coffenbury, Smith and Siltcoos are a few of the lakes on the coast which frequently produce good catches.

The angler interested in crappie fishing need not worry about selecting the proper rod and reel for the fish can be taken either by casting, trolling or bait and even the most simple cane or willow pole will be adequate. On the other hand a fancy fly rod need not be left behind when going crappie fishing for this species readily strikes flies, either submerged or on the surface.

Bait or still fishing is probably the most popular angling method used for crappie throughout the United States. Since live fish cannot be used in Oregon's fresh-water streams and lakes, another

bait must be chosen. Second in popularity and also very effective is cut white fish flesh. In cutting pieces into bait size, choose a fresh fish such as a chub, squawfish or sucker and cut the strips about ¼ inch in diameter by 1½ inches long. In bait fishing for crappie it is important to keep in mind that a moving bait catches more fish. The cut bait is as effective as live minnows if the bait is constantly kept in motion. Not only should the bait be moved to attract fish but it should be cast in different places in order to locate schools of fish. Some anglers say that a variation of a few feet in choosing an angling spot may mean the difference between success and failure. Other baits such as earthworms, white grubs and fly larvae are used effectively by bait fishermen.

The caster has a multitude of spinners, wobblers and plugs to choose from, especially now that manufacturers are producing small lures designed for spinning. Most small wood or plastic plugs work well on crappies. Metal or pearl wobblers are also excellent lures. The Pippin wobbler and Trix-oreno have been favorites of crappie fishermen for many years. Anglers using flies for crappies usually prefer those whose dominant colors are white or cream. A wet streamer, either

in white bucktail or white feathers, is preferred by many anglers. Popping bugs and dry flies will often produce good catches when crappies are brought to the surface by an insect hatch. As in the case with cut bait, flies should be given action with the fly rod tip. A spinner and fly or spinner and pork rind or cut bait are other favorite combinations.

Trolling appears to be very productive in some of the Willamette and Columbia river sloughs and lakes. Here the angler uses small plugs, wobblers, spoons or flies and trolls slowly, usually with a weight to keep the lure near the bottom. When a fish is caught, it is well to return to the same spot for there is a good possibility of locating a school of fish. Trolling the lure near the bottom is especially important as summer progresses and the surface water warms thus sending the crappie into colder water beneath the surface.

Although crappies can be caught throughout most of the spring, summer and fall months, it is usually in the spring and early summer that the fisherman makes his best catches. These fish are usually found in shallow water but as summer progresses and the temperature rises, crappies seek deeper and colder water. Crappie fishing usually reaches its peak between March and July.

Knowledge of several habits of the crappie can be used to advantage by the

(Continued on Page 7)



Typical lures and flies used successfully for crappie fishing.

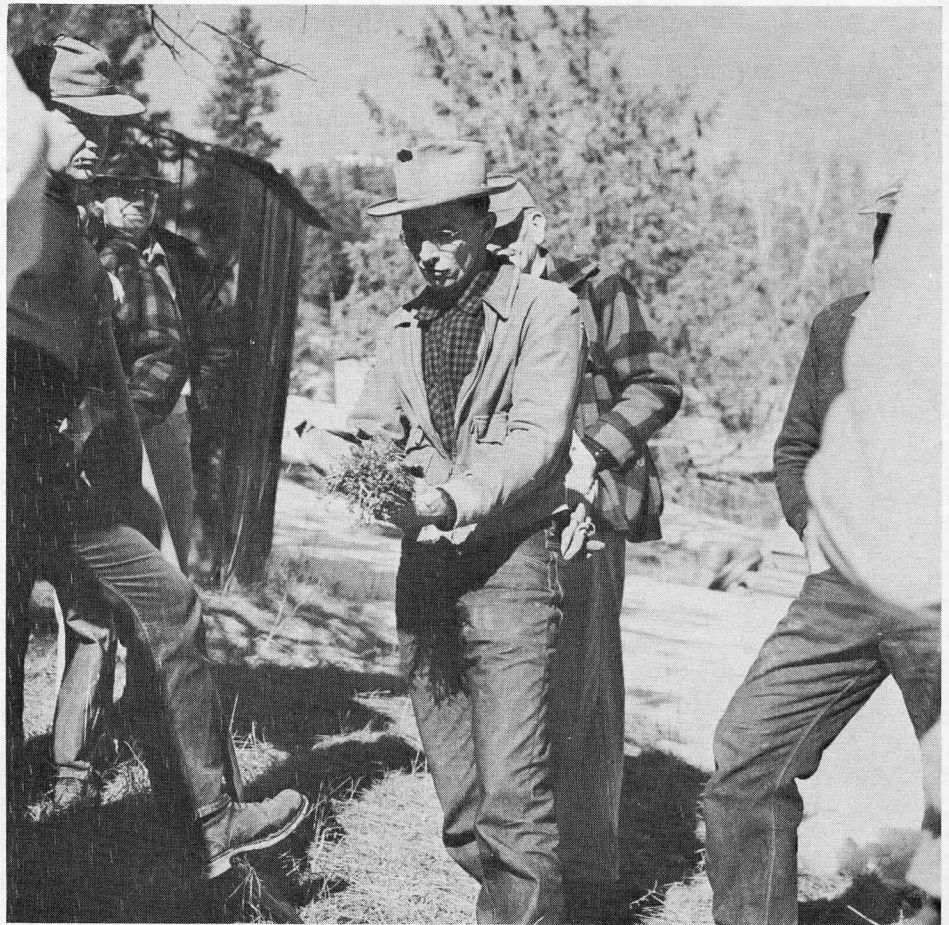
Fertilization of Streams

No, we haven't been pouring superphosphates and nitrates into Oregon's rivers for the purpose of making our fish grow faster as the above title might imply but there is much thought-provoking meat in the idea.

It would seem that the fertilization of streams is like "pouring sand down a rat hole" but such is not true. Recent research has demonstrated that nutrient materials are not all swept to the sea but are arrested and held by the myriad of organisms present in fresh water. The nutrients enter a food chain and are used by bacteria, algae and other microscopic forms first and then higher forms of life such as crustacea feed on the lower ones. Fish eventually utilize the nutrients when they take in insects and crustacea as food.

Oregon's waters are fertilized by nature where there are salmon escaping to spawn and die. The disintegrating carcasses release rich nutrients for a considerable period. On the Rogue, for example, during the past five years about one in five spring chinook entering the river have been caught by the sport fisherman. The remainder or about 20 tons per year escape to the headwaters to fulfill their destiny. Part of that destiny may well be the fertilization of the river for the new generation of young salmon. In Alaska, recently, researchers studied the amount of phosphate at the mouths of streams in the period when the salmon were decomposing in the streams. There was found to be almost a fourfold increase in phosphate in the stream water during the spawning period of two to three months.

It is not without foundation, then, that salmon escaping sport fishermen and nets to spawn and die can materially affect the productivity of a stream.



A SPORTSMEN'S FIELD DAY was held on the North Fork John Day winter game range on March 18. Approximately 50 persons attended, including sportsmen from Morrow and Umatilla counties. The group planted some 3,000 bitterbrush and 400 willow seedlings and broadcast about 100 pounds of grass and clover seed on five sites. Frank Stanton, in charge of habitat improvement for the Commission, supervises the planting project.

HUNTING REGULATION HEARING

The public hearing in regard to 1956 hunting regulations will be held at 10 a.m. Friday, July 13.

Up for consideration are seasons, bag limits and methods of taking game animals, game birds and furbearers.

Crappie Fishing

(Continued from Page 6)

angler. Both the white and black crappie prefer brush or some type of shelter while near the surface, so it is well to cast bait or lures near brush or other cover. The schooling tendency of the crappie often permits the angler to increase his catch.

In contrast to the common belief of the trout and salmon angler that the crappie and other warm-water game species contain many bones, they can easily be cleaned in such a way that they have fewer bones than trout dressed in the conventional manner. Once the fins and spines are removed the crappie or other warm-water game species can be cooked and eaten with ease.

Both the white and black crappie rank high as a food fish. A treat is in store for anyone who sits down for the first time to a heaping platter of crappie fried to a crisp golden brown.

QUESTION BOX

Q. I would like to have a clarification of the regulation prohibiting the use of more than three hooks on a line except on floating bass plugs. Is a triple hook considered as one hook or three? When using more than three hooks on a floating bass plug, is it lawful to fish for other game fish than bass?

A. A triple hook is considered as one hook since it has only one shank and point of attachment.

A. A floating bass plug with more than three hooks may be lawfully used for bass fishing only.

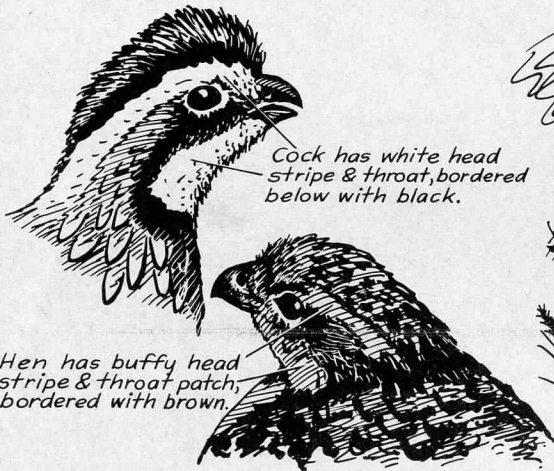
Q. Does the Game Commission receive any money except from license fees?

A. License fees are the main source of revenue. No money is appropriated from the general fund of the state. However, some federal funds are received for such programs as the Dingell-Johnson and Pittman-Robertson (Federal Aid). These funds likewise originate with the user of the fish and wildlife resource since they are derived from the excise tax on sporting arms and ammunition and sports fishing tackle.

BOBWHITE QUAIL

An exotic bird scattered in Willamette Valley; Umatilla, Morrow, Malheur, and Wallowa Co's. Largest populations in Willamette Valley. Prefer woodland borders, thickets, & adjacent open spaces in agricultural areas.

Bobwhite quail were introduced into Linn County, Oregon in 1882. Six pairs were brought from Indiana. Malheur County quail spread from 1875 plantings in Boise Valley, Idaho.



Cock has white head stripe & throat, bordered below with black.

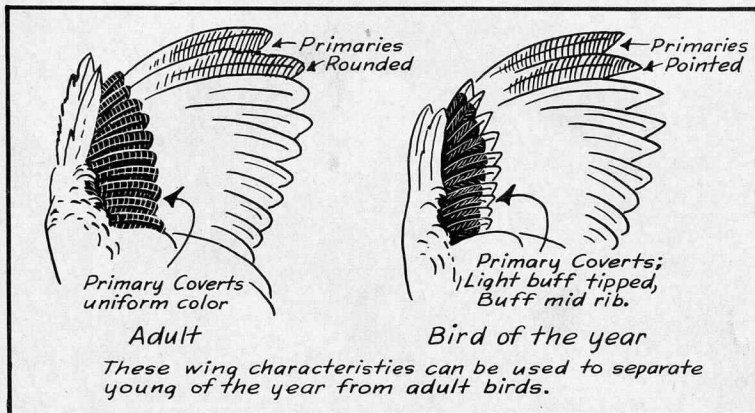
Hen has buffy head stripe & throat patch, bordered with brown.

Adults weigh about 6oz. Brownish to buffy underparts, general reddish-brown coloration. Young birds reach adult weight in 15 weeks. Fast flyers for short distances; excellent, rapid, and tireless runners.

In the spring coveys break up into pairs. Cocks fight desperately but are seldom injured. "Bob-bob-white" is the mating call of the male. When paired, males start nest building. Approximately 14 eggs are laid. Nesting occurs from May through August. Incubation takes 23 days. Cock joins in care of chicks when they leave nest.



Young chicks eat mostly insects, but the diet includes more plant material as they mature. Grit is necessary for use by the gizzard in grinding food.



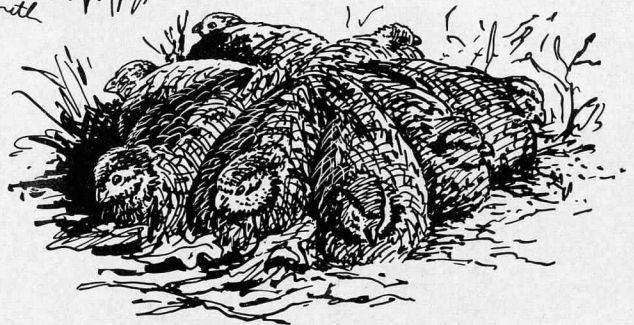
Primary Coverts uniform brown

Adult

Primary Coverts; Light buff tipped, Buff mid rib.

Bird of the year

These wing characteristics can be used to separate young of the year from adult birds.



In the fall after nesting is over the adults and young gather into coveys for winter protection. They roost on the ground in circles with heads out.

Oregon State Game Commission Bulletin

1634 S.W. ALDER STREET
P. O. BOX 4136
PORTLAND 8, OREGON

