



Chukars to Be Tried In Oregon

The Washington State Game Commission, which has been successful in its efforts to establish the chukar partridge in that state, has agreed to furnish the Oregon State Game Commission 500 chukar eggs this season. The eggs will be sent to the Hermiston game farm to be hatched and most of the birds raised will be held for breeding stock to provide birds for future planting. Suitable habitat for this species is found in the Columbia Basin counties.

Negotiations are underway also to obtain wild-trapped chukars from Nevada, which is another state where the introduction of these birds has been notably successful.

For a number of years Oregon has been observing carefully the progress of the chukar partridge introduction in the various western states and the success achieved in Washington and Nevada, par-

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Bass and Other Spiny Rays . .

By STUART J. COUPER

Assistant Chief, Information and Education

In western Oregon each year, just prior to the vernal equinox, there occurs a period of weather unlike any other climatic whim of nature in this region. Usually only 4 to 5 days in length, it may, however, continue for 2 or 3 weeks. It is the moment when winter seems to relax his dreary grip on the land in order to prepare for the inevitable "unusual" attacks during the spring.

If, by any chance, you are a bass fisherman, you will need no one to tell you that the time is at hand to be ready to take off on the first trip of the year to your favorite lake or slough. The first day of this special time may

dawn a bit chilly with a trace of frost, perhaps, on the roof tops in the valley towns. It will be bright and clear by forenoon though, and by mid-afternoon one has the impulse to try a few handsprings or get out the old mower and make a few passes over the lawn, which has not started to grow as yet.

The second day may start out with a

mild fog in the lowlands which will burn off by about 10 o'clock, leaving the air sweet and warm while your friend, the gardener, can be observed testing the soil with a spade or poking around in the flower beds to see if any of his fancy early bulbs have sprouted.

It is the next day and those to follow that we plug addicts are concerned with though, because as sure as the sun rises and sets, we are confident that one of these will be the day of days when all of the fish that we have dreamed of during the winter will be hungrily watching for the first sight of a plug or spinner flashing and darting through sun-splashed waters of the shoreline. There is the memory, too, of days like these in other years, when the measure of time seemed to pause and when, on each cast of the lure you expected, and sometimes received, a smashing strike and felt the powerful surge of a well-hooked fish.

Bass

You are pleasantly surprised and a little puzzled, too, at the vigorous condition of the bass, sometimes even a showing of excess fat around the viscera, and the egg sacs plump and ripe appearing.

You fish and you relax over sandwiches and coffee. Later you may succumb entirely to the moment and catch a nap, sprawled out on the boat with the sunshine streaming in and making your world warm and cozy.

How many fish did you catch? One or two, sometimes none; other special times, 4 or 5, but that is unimportant. You are a bass fisherman and you have a two-months jump on the trout boys. Your weeks of armchair angling are over and

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The main stem of the Willamette besides being a fine bass stream is a busy highway of log rafting tugs.

☆ THIS AND THAT ☆

The release of 25,000 fin clipped rainbow trout in the Alsea River last month by the Game Commission is a continuance of a series of experiments to determine the return from legal-sized trout plantings made prior to the fishing season. The trout were produced from fall-spawning rainbow brood stock at the Alsea Hatchery, and averaged seven inches in length. The fishery agents also want to see how many of these fall-spawning rainbow, if any, go down to the sea and return as steelhead. A fishery agent will check anglers' creels on the Alsea River, and the co-operation of anglers will be greatly appreciated.

* * *

The 1950 ANGLER'S GUIDE, compilation of the official angling regulations, is now being distributed from all license agencies throughout the state as well as by the Game Commission office in Portland.

* * *

During the months of February and March an aerial survey was made of eastern Oregon elk herds and the antelope herds of the south central part of the state. Data so obtained will be supplemented by ground observations later in the season, and all information will be co-ordinated for use in formulating the big game regulations for this fall.

* * *

With this month's issue, the BULLETIN starts its fifth year, the first issue appearing in April, 1946.

* * *

The Game Commission recently has entered into agreements with the North and Central Wasco County Soil Conservation District and the Gilliam County Soil Conservation District for the planting of trees and shrubs desirable for both wildlife and soil conservation purposes.

* * *

Early in March the eggtake from fall-spawning rainbow brood stock had been completed at all hatcheries with 10,006,200 eggs being taken. Spring-spawning rainbow egg-take started later and a take of 2,000,000 was anticipated at the McKenzie hatchery. Cutthroat spawning operations at the Alsea hatchery yielded 743,650 eggs.

* * *

A permanent big game salting program is being provided for the game ranges of eastern Oregon where needed. In addition to providing necessary minerals, salting is used to induce earlier migration of big game from problem winter ranges, encourage more uniform use of forage on crowded ranges, reduce game and livestock competition by encouraging more widespread game use on areas inaccessible to stock and alleviate game damage by drawing animals away from problem areas.

Oregon State Game Commission Bulletin

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April-May Calendar

Trout — Opens April 15, Zone 1 (coast area), and northern part of Zone 2.

Trout — Opens May 1 in Zones 3, 4, 5, 6, 7, 8 and southern part of Zone 2.

Salmon and Steelhead over 20" — Open both months in inland waters.

Salmon and Steelhead over 20" — Opens April 15 in coastal waters.

Spiny-rayed Fish — Open both months.

Predatory Animals — Open both months.

NOTE: For exceptions consult official hunting and fishing regulations.

CHUKARS IN OREGON

(Continued from Page 1)

ticularly, seems to warrant trying to establish the species in similar habitat in Oregon.

Through the efforts of the Oregon Cooperative Wildlife Research Unit, 750 Hungarian partridge eggs also are being imported from Denmark in an effort to develop breeding stock to provide birds for planting the Willamette Valley. Conditions in the area from which the eggs are being obtained are similar to the Willamette Valley and it is hoped that

this strain of birds will adapt itself better to the valley than the Hungarian partridge of eastern Oregon.

Washington, Idaho and Oregon Commissions Meet

A joint meeting of the Washington, Oregon and Idaho Game Commissions and departments was held February 20 at Walla Walla, Washington, to discuss problems of mutual interest, including reciprocal license fees, migratory waterfowl seasons, and regulations concerning the Columbia and Snake Rivers. All three departments agreed to request the federal government to grant a sixty-day continuous season for waterfowl this fall.

It was decided that similar meetings be held in the future at least once a year.

North American Wildlife Conference Attracts Large Attendance

Attendance at the Fifteenth North American Wildlife Conference held in San Francisco on March 6, 7 and 8, closely approached the all-time record of the 1949 conference in Washington, D. C., despite fears that breaking precedent in bringing the conference to the west coast for the first time might result in a curtailed registration. However, more than 1,100 persons were registered. The Oregon State Game Commission was represented officially by Commissioner Donald Mitchell, Director C. A. Lockwood and Assistant Director P. W. Schneider. Several other personnel also attended.

The three main themes of the general sessions were conservation education, land and water policies and status of waterfowl. The opening session covered the subject of conservation education from a continental standpoint, papers being presented by representatives from Canada and Mexico as well as the United States. The fact that an entire general session was devoted to this subject is recognition of the increasing importance of the role that conservation education must play in the maintenance of the natural resources of the nation.

In the six technical sessions, excellent papers were presented generally around technique for use in big game, small game and fisheries management.

Preceding the North American Conference, several related meetings were held, including one for the Cooperative Wildlife Research Unit leaders and personnel. Discussions were held on various lines of endeavor in wildlife research being conducted by the Units throughout the United States. The Oregon Research Unit is located at Corvallis and its program is sponsored co-operatively by the Wildlife Management Institute, the Fish and Wildlife Service, Oregon State College and Oregon State Game Commission.

Trout Anglers To Open Season

Trout season in the coastal waters of Zone 1 and in the northern part of Zone 2 (lower Willamette Valley) opens on April 15, approximately two weeks ahead of the rest of the state. The general opening date of May 1 applies to Zones 3, 4, 5, 6, 7, 8 and 9, as well as to the following part of Zone 2: North Santiam River and tributaries, Linn County and that part of Lane County in Zone 2. Streams and lakes having special seasons are listed by zones in the 1950 Angler's Guide, copies of which are available at all license agencies.

No change has been made in the general trout bag limit, which is 10 fish but not to exceed 15 pounds and 1 fish in any one day, and 20 fish but not to exceed 30 pounds and 2 fish in any 7 consecutive days and in possession.

Regulations in regard to general minimum length limits also remain the same with the exception of certain Cascade lakes. At East Lake, Paulina Lake, Sparks Lake, Davis Lake, Crane Prairie Reservoir and Wickiup Reservoir, the minimum length limit will be 9 inches. At Diamond Lake, the 10-inch minimum length limit was abolished and the 6-inch limit will prevail. In the McKenzie River, dolly varden and whitefish are exempted from the general minimum length limit of 6 inches. So are eastern brook in all lakes above 5,000 feet in elevation in the Wallawalla mountains, except Duck, Twin and Fish Lakes.

Fish Stocking

The release of yearling legal and near legal sized fish from Commission hatcheries commenced in February and is underway at several of the stations now. A total of over 2,500,000 of these will be released this spring and during the early summer months in streams and lakes in all parts of the state. At the Oak Springs station on the lower Deschutes two large liberation units are being used to accomplish the distribution of the large rainbow being held there. These fish are averaging approximately 8 inches in length and many are larger than that.

On some streams and lakes boats are being used to obtain a more desirable distribution of the planted fish. For example on Ten Mile Lakes in Coos County the fish were taken by planting boat to the upper arms of the lake, several miles from the outlet. On the McKenzie all yearling fish are being planted by boat.

Snow and road conditions will delay planting in some areas until June. An effort is being made to spread out the plantings for many of the streams and lakes over a period of three to four months to obtain a higher return to the anglers' creel.



"Sorry, Gus, I can't go camping with you . . . my wife put her foot down."

Planting Activities Moved To Eastern Oregon

The shrub and tree planting activities of the Habitat Improvement Department were transferred on March 20 to eastern Oregon for the spring season. Approximately 75,000 multiflora rose bushes were planted this winter by commission personnel or co-operating landowners west of the Cascades. Several clubs, including the Willamette Chapter, Izaak Walton League, and the Milwaukie Rod and Gun Club, co-operated in locating planting sites.

The commission has 175,000 various shrubs and trees available for conservation use on eastern Oregon farms. Planting for fencerows, wind breaks, wood lots, stream bank or gully erosion control, and similar uses which will also result in improved habitat for wildlife are conducted by the commission at no cost to the landowner. Any farmland owner desiring to co-operate or wishing further information should consult his County Agent or contact the Game Commission Field Agent without delay.

Continuing a practice begun in western Oregon last fall, the Game Commission will make available to eastern Oregon sportsmen's groups a limited, free distribution of shrub and tree planting stock for habitat improvement purposes. Any club wishing to conduct such planting this spring, and having selected a site with the co-operation of the landowner, should contact the local Game Commission Field Agent without delay and advise him as to the number of shrubs, date and place of delivery desired. Although plantings are being made on farm lands at the owner's request, it is felt that co-operative habitat improvement work through sportsmen's club-sponsored projects will result in a better understanding of their mutual problems by sportsmen and farmers.

Tillamook Burn Seeded

The Habitat Improvement Department has recently completed seeding 570 pounds of Lotus major donated by a group of Clatsop County seed growers and the John Jacob Astor Experimental Station. Five sites in the Tillamook Burn were selected by Wesley Batterson, district agent at Nehalem, under whose direction the work was conducted. In addition to the donated seed, commission personnel broadcast about 300 pounds of grass and legume seeds and planted several thousand shrubs and trees. County Agent H. G. Smith of Tillamook participated in the seeding operations. The State Board of Forestry readily granted use of the land and also supplied the trees. Sites selected for these trial plantings are near the headwaters of the Wilson, Trask and Nehalem rivers, where there is heavy utilization of available food by winter concentration of deer and elk.

Salmon-Steelhead Tag Cards in Use

In an effort to obtain a measure of the sports catch of the salmon and steelhead in the state as well as a means of enforcing the annual bag limit of 20 such fish, this year the Game Commission for the first time is trying out the salmon-steelhead tag card.

A licensed angler desiring to fish for salmon or steelhead 20 inches or over in length must obtain one of these cards from a license agent or the Game Commission and have it in his possession while fishing. Each card has 20 detachable numbered tags, one of which has to be affixed to each fish as soon as it is caught. There also is a place on the card for writing in the date and the name of the stream from which the fish is taken. Each card is valid for the period from March 1, 1950, to February 28, 1951, and is issued free of charge.

Instead of requiring all anglers to return their cards to the Game Commission, it is planned to ask for only a certain percentage of return. Therefore, anglers are to keep their cards in possession until May 31, 1951, after which they may be destroyed if no request has been received from the Game Commission for their return.

Anglers are asked to co-operate in this experiment as it is a means of obtaining much needed information.

Do you want to receive this BULLETIN each month? If so, send in your name and address and you will be placed on the mailing list free of charge.

Bass and Other Spiny Rays

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perhaps one of those weird plugs you whittled out and painted during the winter past has actually rewarded you with a fine eating fish to take home. You and your buddies are already laying plans for the next time, but you should probably hold back now until the cottonwoods and chittem and the Indian plum are laced with the new green of spring. The sunshine of May releases many animals and plants from their semi-dormant state, and the land and water seem alive with things trying to outgrow each other. A bee, overburdened with pollen from the early flowers, drops to the surface of the lake from an overhanging bush and a sunfish appears to study the insect's struggles in solemn detachment. A moment later, there is a liquid popping sound, a bulge on the surface of the water, and the bee and the bluegill have disappeared! Had that bee been a fly on your leader, you might have had a tasty morsel to drop in your creel.

If all this doesn't suit you, take a streamer fly with a tiny spinner and work around the snags and brush piles, or in a deep pocket along the bank. Crappies sometimes go for that. Big silvery white ones, or often the thick, black-spotted ones with the purple and greenish iridescence on the shoulders, will "take" with reckless abandon. We are in western Oregon, in the flood plain of the Willamette, or in those delightful areas of the coastal plain having almost year-around fishing for perch, catfish, sunfish, crappie, and bass. Whenever there are dune lakes such as are found in Clatsop county, northern Lincoln county, or the chain of very wonderful lakes in western Lane and Douglas and northern Coos counties, there are fish to be had from February to November. Sometimes, on a mild winter's day, one can lure a mess of yellow perch or catfish from these waters by using the pleasant and effective process of cork and worm angling. This method, often scorned by those who profess a plane of higher virtue, is probably the cause of a lot more downright satisfaction for more people than ever saw a dry fly cast.

Whereas in the spring and late fall we may expect to find the fish striking throughout the day, it is more than likely that in mid-summer and early fall we should plan to beat the sun out of bed and do our fishing while the work-a-day world is waking up and having breakfast. We should return, though, for that special hour of twilight when the heat of the day is forgotten and the old lunkers of bass, that have dozed all day in the depths of a shady pocket, will move out and up to blast into eternity a luckless moth that falls from a branch or stump to struggle a moment on the quiet surface of the water. Here, again, if you were an angler and the struggling insect a fly on the end of your line, there should be stories to

tell and possibly a couple of two-pound filets to grace the frying pan.

Bass fishing is like that, whether you fish the rocky shoreline of Owyhee, the snags and eddies of the Willamette and its sloughs, or the tules of Siltcoos.

Catfish

With the season's duties of parenthood behind them, Mr. and Mrs. Bullhead Catfish find themselves joining others of their kind in shoals, questing by taste and touch for an insect tidbit or a more substantial meal of crayfish or nightcrawlers. It is the latter that is usually impaled on the barb and offered by way of temptation to lure the wriggling, bewhiskered catfish from the floor of the stream or lake. There, in the gloom, they hunt with their delicate tactile barbels and their staring, myopic eyes. At times, they will feed with extreme deliberation, making the angler's line bob and twitch in gentle motion, while at other times they may battle viciously with their school-mates for the privilege of gulping the bait.

Not all of the pleasure derived from fishing comes from the actual catching. There is the matter of edibility to discuss. Bullhead catfish have never been popular from an acrobatic standpoint, like some of the trout and bass, but when it comes time to take up the knife and fork, a properly prepared catfish is always welcome on the plate. Fried golden-brown, and flavored with a bit of lemon juice and melted butter, they are the delight of many an epicure.

When you fish the sloughs and overflow ponds along the lower Columbia, you may find that catfish strike best during daylight hours and at some particular stage of the tide. In other waters, especially those in the Willamette valley, we know the evening time to be the best. Choose a spot where the bottom of the lake is free of snags or weeds and where on the shore, a little fire can safely burn. Whether you prefer a handline, a cane pole, or a casting rod makes little difference to the fish. He wants a mouthful of nice fresh, wriggling angleworms, and he wants them down there on the bottom.

Someday when you come across a school of those yellowish-brown fellows, 10 inches or so in length, and with the nutcracker jaws, you will have about the best of the catfish in Oregon. They are known as the Yellow Bullheads and can be readily distinguished from their cousins, the common Brown Bullhead, and the more rare Black Bullhead, because they always wear white chin whiskers instead of black like the other varieties.

It might be simpler to state the relatively few areas where catfish are not found than to describe their distribution as it is known in Oregon today. A few spots should be mentioned, though, to suggest their versatile ability to exist and reproduce under a wide variety of conditions. You will find them in the Snake River and its tributaries along the eastern border of

the state, in the Columbia River from the Washington state line down almost to Astoria, and in the Willamette and its myriad sloughs and lakes up-river to Eugene.

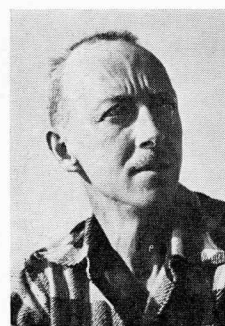
The famous Rogue River is well-populated with catfish in its middle reaches, as are the Smith and Coos Rivers of the coastal area. Impoundments and natural lakes too numerous to mention, contain catfish in varying degrees of abundance. One, in particular, South Ten Mile Lake in Coos County, is currently suffering a lack of fishermen. It contains a huge population of large, hungry catfish who could literally eat themselves out of production in time. At present there is no legal limit to the number of catfish one can take from South Ten Mile Lake.

Once in a while some well-meaning individual will inform you that he tried to eat some bass, catfish, or other variety of the pond fishes and that they tasted like the bottom of the swamp. Therefore, he declares, *all* of these fish are unpalatable and should be scorned as are the carp and sucker in this region. Nothing could be much further from the truth and yet it is quite possible that for a limited time, usually in the early fall, the flesh of some spiny-rays and catfish takes on a definitely musty flavor. This condition seems to occur most often in those bodies of water having a super-abundance of pond lilies or other aquatic vegetation.

When any external condition develops that render the fish undesirable from a culinary standpoint there are several

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ABOUT THE AUTHOR

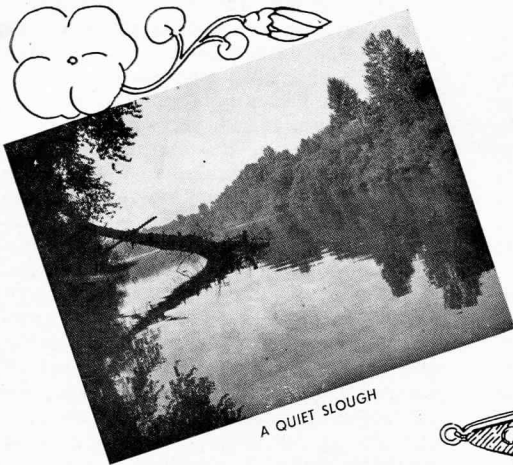


Stu Couper, assistant chief of the Information and Education Division of the Game Commission, has a variety of talents, hobbies and interests. If it can be said that one of his many hobbies has held first place in his leisure activities, it has been the exploring of over-

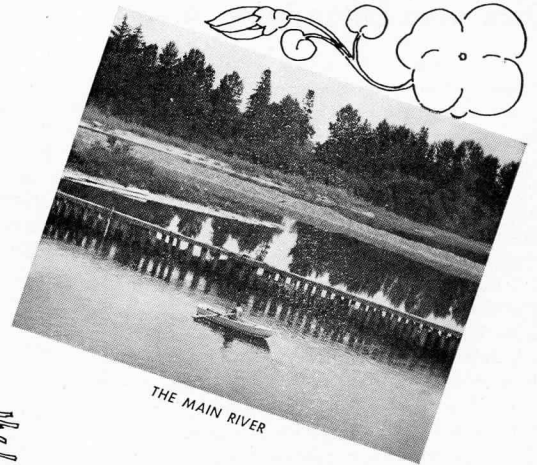
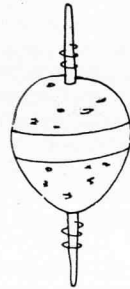
looked fishing sites in the Willamette Valley. A native Oregonian, he has spent much of his free time since boyhood fishing for bass and pond fishes as well as delving into the biology of these often overlooked fish.

In addition to aiding in the overall education and information program of the Game Commission, Couper is in charge of photography, the production of visual aids, and special publication layouts.

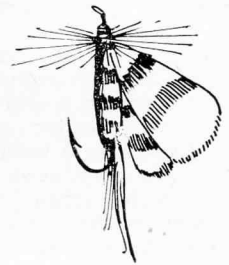
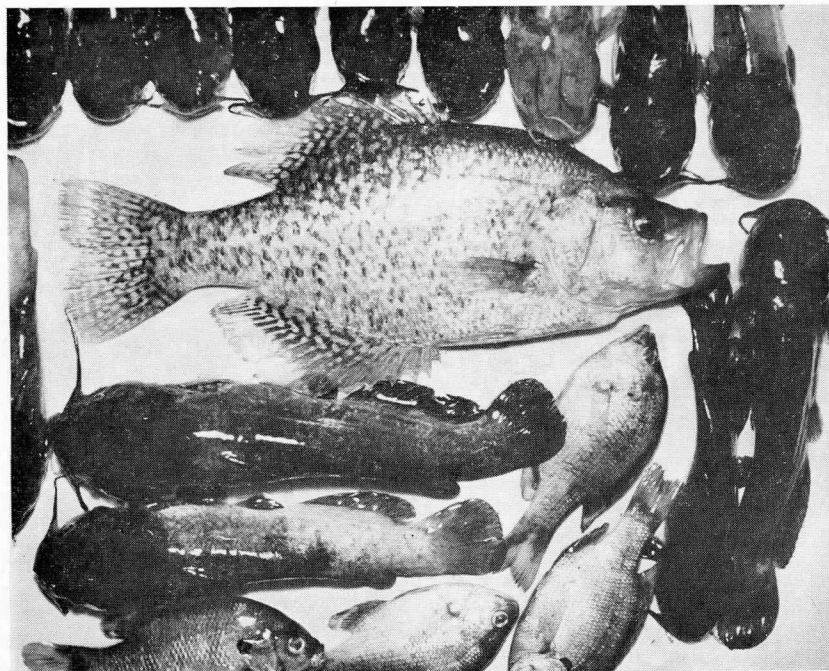
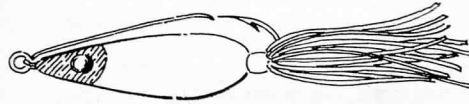
Before joining the Game Commission staff, Couper served with the A.A.A., the U. S. Bureau of Agricultural Economics and the Oregon State Highway Commission.



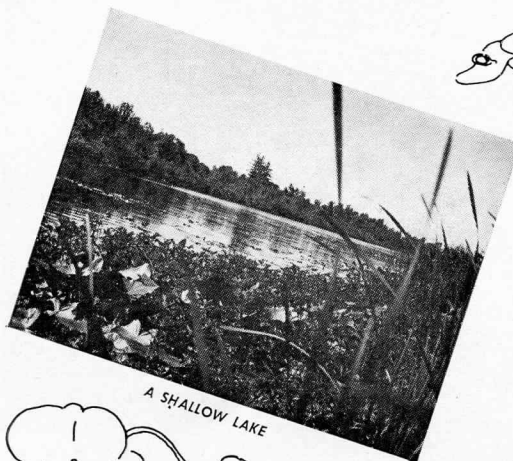
A QUIET SLOUGH



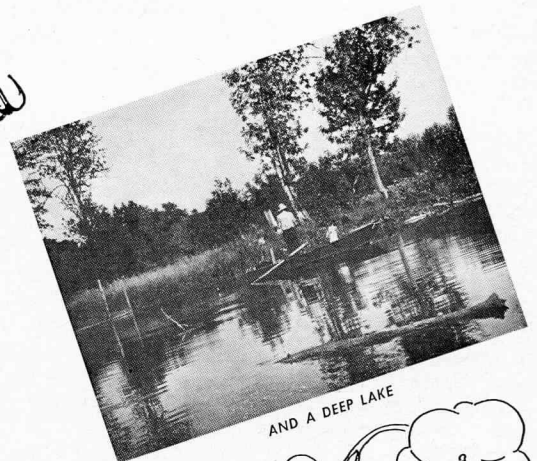
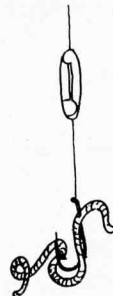
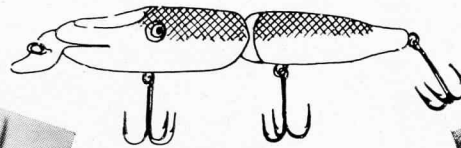
THE MAIN RIVER



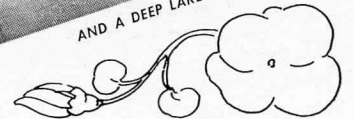
Panfish come in a wide variety of shapes and sizes and from waters that are quite different in appearance.



A SHALLOW LAKE



AND A DEEP LAKE



Bass and Other Spiny Rays

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choices open to the angler. He may do his fishing elsewhere; he could fish for other species; or, he can minimize the strong flavor by one of several methods involving very simple steps in preparation and treatment of the meat before and during the cooking operation. There is another solution to the problem, unacceptable for the most part to many anglers, which involves the simple process of returning to the water all undamaged fish after they have been hooked and played out. This is undoubtedly a drastic measure as it is seldom ever practiced.

Boats and Equipment

It might be well at this time, before we are completely overcome with thoughts of all this wonderful fishing, to pause and consider some of the seldom mentioned problems and deterrents that are also a part of the story. To begin with there are so few places where boats are available to the public-at-large that it is almost mandatory for a person to provide his own flotation gear. This also involves a trailer or other means of transportation. Boats, of course, come in a wide variety of shapes and sizes and it is not our desire to specifically recommend any particular one. In general though, if it's 10 or 12 feet in length, not over 200 pounds, and will hold a ton of loose hay it will serve the purpose. A solitary angler could get by with less and likewise a large group would necessitate a much more spacious craft. Fishing with more than two other persons in a small boat often leads to unnecessary complications. A boat and trailer of ordinary quality will cost around 200 dollars. Then there is the quite important matter of tackle and other desirable equipment. A novice might wince at the thoughts of putting out around 50 dollars for a starter but many veteran anglers will have 2 or 3 hundred dollars in rods, reels and associated gear.

An outboard motor is seldom necessary and is not recommended for pond fishing. In large bodies of water though, a good motor operated properly will add much to the pleasure of fishing. There are those who insist that outboards contribute greatly to the fishes' reluctance to take the bait. There are also a few "narrow minded" souls who object strenuously to having their own craft upset and the shoreline waters roiled by some aquatic hot-rod addict.

So far, let us say, we have spent around 3 or 4 hundred dollars for a nice outfit, boat, trailer, tackle, and other miscellaneous gear and we still have not wet a line because at every place we would like to fish we find there is a flock of signs informing us that trespassers are not very welcome. On occasion, a brief conversation with the land owner will open the gate. Too often, however, repeated thoughtlessness on the part of poor sportsmen and others will result in the closing of an access point to many deserving individuals who are good sportsmen and who do respect the owners' rights and properties. An increasing amount of the recreational area of the state is being eliminated from public access in this manner.

Camping

Perhaps one of the most enjoyable trips available to a bass fisherman is an overnight camping trip on the Willamette River.

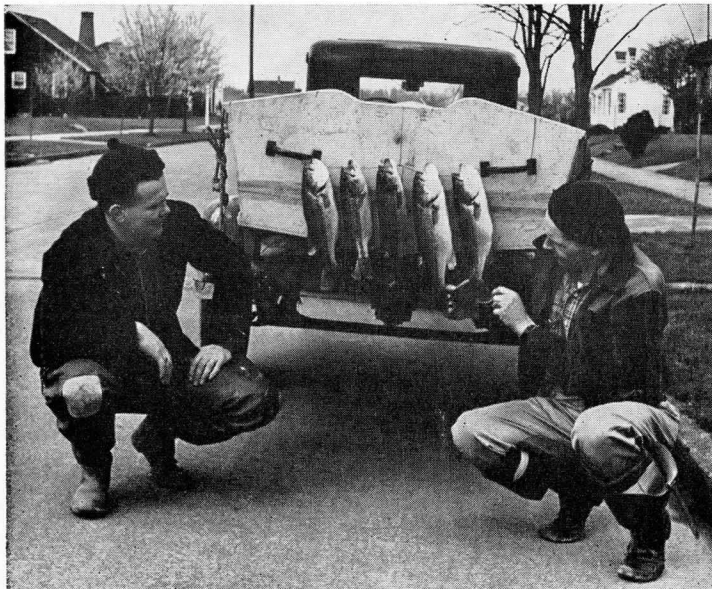
If we can assume for the moment that you enjoy cooking over a camp fire, sleeping on a lonely gravel bar by night, and exploring each eddy and backwater with plugs or flies as you follow the meandering course of the main stream, then your summer week-end trips will be assured of success. Starting in the vicinity of Harrisburg and continuing downriver nearly a hundred miles, a succession of long or short trips is available giving a wide variety of choices to the angler. In the upper reaches of the area, in addition

to bass, catfish, and other spiny-rays, there are native cutthroat and rainbow trout in the early summer where riffles and eddies provide suitable habitat.

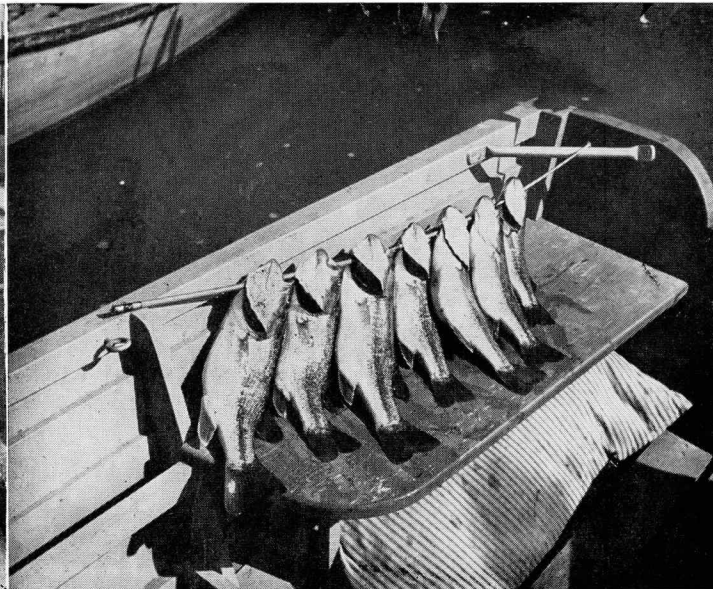
Elaborate planning is seldom necessary for a week-end trip yet some thought should be given to the method of operation, the required tackle and the sleeping and cooking facilities. The more simple and efficient your gear can be the more time you will have for fishing. Plans for a short float trip between Saturday noon and Sunday noon might include for the evening meal a steak to be broiled over coals, pre-cooked potatoes, fruit, coffee and cookies. A breakfast consisting of ready-mixed flapjacks, bacon, fruit juice and coffee is usually quite satisfactory and simple to prepare. Sleeping gear should be limited to a bedroll or standard sleeping bag supplemented with grass, ferns or light branches for a mattress. It is obvious that when making a float trip of any distance it might be somewhat of an effort to get back up river to the original point of departure. An outboard motor is one solution but is a further complication in a small boat. A better way is to leave a car and trailer at the point downstream where you plan to pull out.

Choose your camp site whenever possible near a quiet slough or backwater where after dark you could drop a worm-baited hook over the side for a try at cat-fishing. Consider also the matter of fire wood and sleeping arrangements. Be certain that your campfire is completely dead before you pull out. Fish as much as you can in the morning before the sun's warmth and brightness take effect. During mid-day or at other times when the fish are resting, give a thought to the interesting and often productive sport of bullfrog fishing. They are legal game when taken on fishing tackle and provide excellent fare at the dinner table. There is a lot of sport to be had and a certain amount of skill required in stalking and

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Early spring bass are in as good condition . . .



. . . as those which are caught in the fall.

GENERAL POLICIES OF OREGON STATE GAME COMMISSION

Meeting in special session on March 17 and 18, the Oregon State Game Commission issued a formal statement of its general policies in regard to the management of the wildlife resources of the state. This statement is printed below.

An outline of the program for carrying out these policies will be included in the next issue of the *Bulletin*.

OBJECTIVE

The objective of the Oregon State Game Commission is to provide and maintain the maximum population of game animals, game birds, game fish and furbearing animals compatible with available wildlife habitat and food, and to permit an orderly harvest of surpluses in a manner that will provide the greatest benefit to the greatest number of Oregon's citizens.

POLICIES

The following general policies will be followed in attempting to attain this objective.

GAME RESOURCES

I. MANAGEMENT SHALL BE BASED ON FACTS

Management programs and annual harvests will be based upon facts as ascertained by systematic measurements and basic research projects, giving due and careful consideration to information from other agencies, organizations and individuals. The primary concern of the game management program shall be the maintenance of the game resources, while providing the maximum degree of orderly utilization on a sustained yield basis.

II. COOPERATION SHALL BE MAINTAINED WITH OTHER AGENCIES AND GROUPS

Recognizing that the programs of land management agencies and some private enterprises may have a substantial effect upon game production and that Oregon's game management program may benefit or conflict with their programs, it is the policy of the Game Commission to join such agencies or parties in cooperative programs that will benefit wildlife and be compatible with primary land uses. The Game Commission will urge public land management agencies to give consideration to production of wildlife in their utilization programs.

III. IMPROVEMENT OF HABITAT SHALL BE VIGOROUSLY CARRIED OUT

The fundamental value of wildlife habitat and the necessity for its maintenance and improvement is recognized. In accordance with the preceding statement the following points are emphasized as being the policy of this Commission.

1. The program of habitat improvement will continue to expand, the rate of expansion to depend upon the development of valid techniques and evaluation of the soundness of various practices.
2. The principle of proper land use will be encouraged. The work of other conservation agencies or groups will be supported in the interest of conservation generally and of wildlife in particular.

IV. PUBLIC SHOOTING AREAS SHALL BE MAINTAINED

Recognizing that intensive agricultural developments and reclamation projects have caused a substantial reduction in the habitat of some species, especially waterfowl, and that much of the remaining suitable habitat is included in private shooting preserves, the Commission proposes to set aside by purchase or agreement areas of suitable habitat, to preserve and improve such lands for wildlife and provide a place upon which the public can hunt.

V. BIG GAME SHALL BE MANAGED TO ASSURE THE HIGHEST SUSTAINED UTILIZATION

To assure continued high production of big game in Oregon, an aggressive management

program based upon facts and compatible with other land uses will be pursued.

VI. UPLAND GAME SHALL BE MANAGED TO ASSURE THE HIGHEST ANNUAL UTILIZATION

It shall be the policy to manage upland game species as an annual crop and apply regulations and management based upon facts to assure high sustained levels of production and full utilization of available surpluses.

VII. MIGRATORY BIRDS SHALL BE MANAGED ON THE BASIS OF THE CONTINENTAL PACIFIC FLYWAY

The Commission recognizes that sound management of migratory birds must be based upon facts. Generally, regulation of migratory birds is under the direct supervision of the U. S. Fish and Wildlife Service. To that end it shall be the policy of the Commission to collect all possible facts concerning migratory fowl and to cooperate to the greatest practicable extent with all provinces, states and federal agencies dealing with migratory birds in the Pacific Flyway.

It shall be the policy of the Commission to improve conditions for migratory birds within the state by providing sanctuaries, resting, feeding and breeding areas, to undertake such other projects from time to time as will be conducive to the propagation and furtherance of this vital resource to the end that a continued orderly harvest thereof may be possible.

VIII. FURBEARERS

The fur resources of the state constitute a crop which is primarily economic in value. It is the policy of the Game Commission to maintain a careful management program which shall consider at all times the interrelationship of such furbearers with the primary game species of the state and achieve the highest sustained use of the resource as a supplemental cash crop. The beaver resource will be so managed as to utilize this species to a maximum degree in soil and water conservation, but in so doing vigorous protection shall be exercised on those lands intensively developed agriculturally.

IX. PITTMAN-ROBERTSON PROJECTS

Monies allocated to the State of Oregon by the U. S. Government for the purpose of restoring wildlife habitat and populations will be used primarily for acquisition and development of lands for the production and maintenance of wildlife.

GAME FISH RESOURCES

X. MANAGEMENT SHALL BE BASED ON FACTS

Management programs and annual utilization of the present and potential fishery resources will be based upon facts as determined by systematic measurements and research, giving due and careful consideration to information from other agencies, organizations and individuals. The program of annual harvests shall be primarily concerned with maintenance of the fishery resource, while providing the maximum degree of utilization under a sustained yield program.

XI. MAINTENANCE AND IMPROVEMENT OF HABITAT

The maintenance of fish habitat is fundamental to a sustained fishery management program. With this premise as one of the basic concepts of the Commission's current and projected program a vigorous and progressively expanding program of improvement of fish habitat shall obtain.

XII. FISH PROPAGATION

It will be the policy of the Commission to utilize to maximum capacity and in the most efficient manner possible the fish cultural facilities for stocking the public lakes and streams of the State.

The physical facilities for the artificial production of fish shall be maintained and adapted to the production of the size and species of fish determined by research and measurement as being the best and most economical in terms of return to the angler's creel.

In general, Oregon's fisheries may be divided into two categories — lake fisheries and stream fisheries. Within each of these two groups, however, many variable factors must be considered in relation to our fish propagation program. As a result of previous measurements of artificially produced fish it shall be general policy to emphasize the production of fish for stream release to a greater size than for most lake fisheries, keeping in mind the most economical method of production in terms of return to the fisherman, limited only by the ratio of available funds to each major Commission activity.

XIII. FISH LIBERATIONS

Release of salmonoid fish shall be made only in waters available to the public.

The most efficient and successful techniques of fish liberation shall be employed in the release of hatchery reared fish and constant effort shall be directed at improving such methods to the end that maximum efficiency shall prevail in the liberation program.

XIV. RESEARCH

Recognizing that the most progressive advances made in fishery management have been founded on research the Commission will continuously seek additional tools and knowledge applicable to all phases of fishery production, management, and utilization programs through long range inquiry into factors of a fundamental nature.

ALLIED POLICIES

XV. GAME LAW ENFORCEMENT

The success of Oregon's game and fisheries management programs is largely dependent upon compliance with regulations by our citizens.

Although the responsibility for enforcement lies with another state agency, the problem is so critical that all qualified employees of the Commission shall assist with the enforcement of game laws at all times and particularly during periods of peak pressure, and every effort shall be made to encourage observance of game laws through educational channels.

XVI. PUBLIC RELATIONS

The policy of the Commission shall be to maintain a strong, well-staffed public relations department for the purpose of furnishing the public with timely and complete information concerning the operations and progress of the game management programs.

XVII. POLLUTION CONTROL

The Oregon State Game Commission recognizes stream pollution as being one of the most serious and difficult problems in the field of natural resources management facing the state today. Although the control of pollution is the province of the State Sanitary Authority, it is the policy of the Game Commission to support and assist this agency in every way possible, to the end that the waters of the state may be restored to a pollution free condition.

XVIII. ORGANIZATION

The organization of the department will be maintained in a manner that will provide an expeditious conduct of all functions throughout the state, with field headquarters and staffs located at strategic points to provide local administrative, coordinating and public service functions. The district office shall provide a local point of public service and action for the Game Commission.

The fiscal affairs of the Commission shall at all times be conducted on the basis of sound accounting principles and business management.

Oregon State Game Commission Bulletin

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Bass and Other Spiny Rays

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capturing these interesting animals. Their feeding habits include almost anything that enters their vision that they can swallow, yet at times they will sit like a statue while lure after lure is dangled in their faces. A long, rather stiff fly rod with a feathered hook tied directly to the line is a suitable outfit.

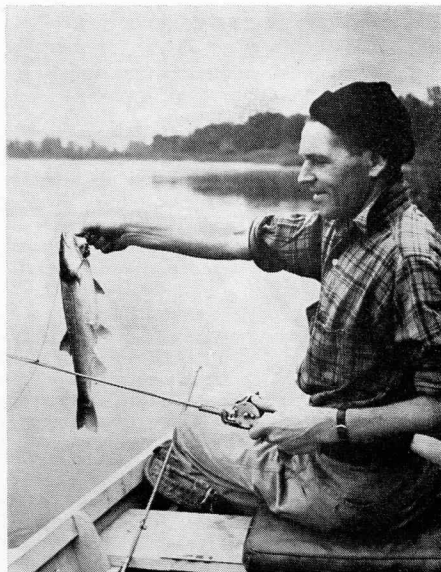
It is considered inevitable when fishing for spiny-rayed fish that sooner or later an angler will catch a squawfish. If you are an inveterate angler in the Willamette and lower Columbia region you will catch many of these undesirable fish throughout a season. The squawfish, commonly mistaken for some variety of pike, is a member of the *minnow family* (Cyprinidae) which includes among other forms the carp and many varieties of chub and roach.

This fish can grow to over three feet in length, will eat anything that it can swallow including many fine pond fish and is considered a limiting factor to immature forms of both resident and migratory salmonoids. The young squawfish are of a minor importance as food for adult bass and crappies but in general the good they do in that way is offset by the harm they do as predators.

The river or lake fisherman who sticks with his sport until fall may find an added pleasure in the form of an occasional duck or goose that may come in range of his shotgun during the bird season.

In spite of the direct inference that fishing for bass and other pond fish involves a large capital outlay it might be well to point out that such expenditures are not always necessary.

Wherever the shoreline is open, or where there are docks or floats available, it is possible to fish successfully from the bank for all varieties of pond fish although it is more commonly done when fishing for crappies and catfish. Also, to many good fishermen the matter of tackle is relatively unimportant. Some are satisfied with what is probably the original article of fishing gear in the form of a handline. Others use a cane pole and bob-



Sooner or later you will catch a squawfish.

ber with a great deal of enthusiasm and effectiveness.

An inexpensive metal casting rod and multiplying reel will adequately serve the occasional angler. Such an outfit along with line, hooks, and other minor items can be bought for about ten dollars.

Management

To each of us who follow some particular outdoor sport such as fishing, the term recreation has come to mean many things. To some it is purely a means of refreshing their cluttered minds, to others it is a pleasant but often expensive way to get something different to eat. To all of us though, it should be a most cherished privilege to be guarded jealously as are the rights of free men to live and work and play as we choose and yet to respect the laws of nature and the rights of our fellow men. All living things are capable of reproduction and all have their place in the overall scheme of nature. It behooves us as one member of a natural order to refrain from the destruction of any desirable species through thoughtlessness or greed.

We should, however, consider the fundamental that wildlife can and will under proper management produce a periodic surplus which, unless harvested in the proper manner, would result in waste. An

over cropping of the seed stock on the other hand will result in an inevitable decline of the natural resource and if continued will result in extinction. When all of us, who either produce or consume the wild game and fish of this region, can be certain that we know when to take and when not to take, and also when to produce and when not to produce, then it will be no longer necessary to regulate by law, or practice, the activities of sportsmen in the field.

Fishing License Sales Continue Upward Spiral

The popularity of fresh-water fishing in the United States continued its upward spiral during the fiscal year ended June 30, 1949, when the sales of anglers' licenses climbed to a new high record of 15,478,570, according to report of the Fish and Wildlife Service.

The gross revenue derived by the 48 states from these license sales, \$32,657,940, also broke all records for earlier years.

Compared with the previous year when 14,077,961 licenses were sold by the various states for \$27,324,644, the 1948-49 season totals show an increase of 1,400,609 in licenses and \$5,333,296 in revenue.

In the number of licenses issued, Oregon was in the nineteenth place with 277,071. Michigan again headed the list, with 1,110,109; California ranked second with 1,030,617; followed by Wisconsin with 1,022,004; Ohio, 918,042; Minnesota, 862,822; Illinois, 783,073; New York, 690,462; Pennsylvania, 611,677; Missouri, 599,109; and Tennessee, 426,437.

Non-resident fishing licenses totaled 1,891,346, an increase of 292,508 over the total of 1,598,838 for 1947-48. States which attracted the greatest number of out-of-state anglers were Wisconsin, with 285,277 non-resident license sales; Michigan, 283,879; and Minnesota, 214,895. By contrast, California reported the sale of only 13,312 non-resident licenses, an increase of 3,435 over the previous year.

In Alaska the total fishing licenses sold numbered 26,299 — 21,481 resident and 4,818 non-resident. The revenue received was \$58,145.

In the Territory of Hawaii, 2,027 fishing licenses were sold for \$9,751.