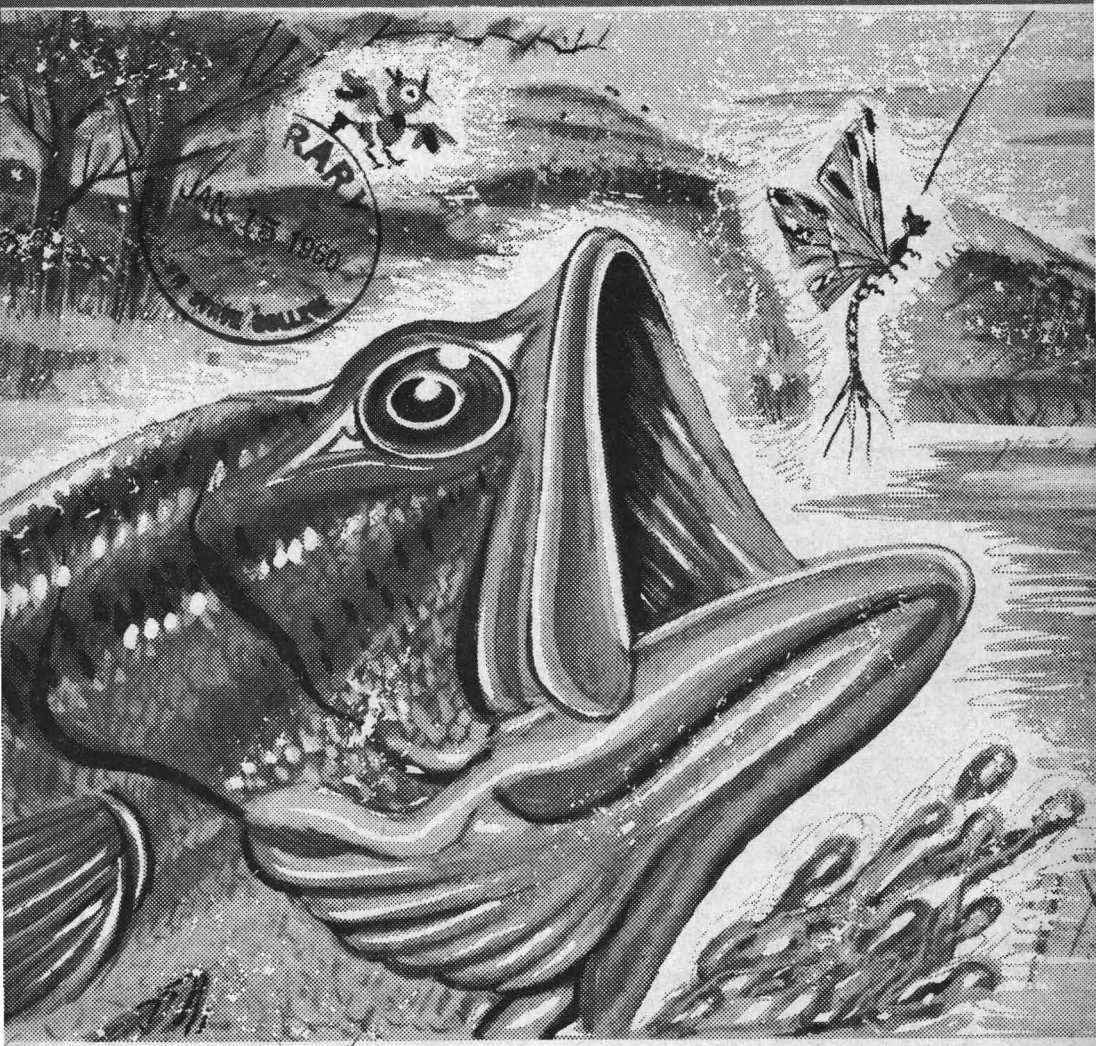
Managing Oregon

Warm Water Game Fish Ponds



Extension Bulletin 791 **October 1959**

FEDERAL COOPERATIVE EXTENSION SERVICE , OREGON STATE COLLEGE , CORVALLIS

Cooperative Extension work in Agriculture and Home Economics, F. E. Price, director. Oregon State College and the United States Department of Agriculture cooperating. Printed and distributed in furtherance of Acts of Congress of May 8 and June 30, 1914.

Managing Oregon

Warm Water Game Fish Ponds

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The best fishing possible is a primary objective in farm fish pond management. Since each pond is a separate biological unit, it can produce only a given amount of food and pounds of fish. If a pond is greatly overstocked, fish will be stunted because total poundage will be distributed among many fish. If a pond is understocked, fish will be larger because total weight will be distributed among fewer fish. Thus, a maximum number of fish must grow to a desirable size in order to reduce the interval between bites.

According to field observations and information from research workers at Oregon State College, the growing of medium-sized fish offers a balanced relationship between a pond's ability to produce food and the number of fish in the pond. In most cases, ponds cannot grow more than a total of 500 adult medium-sized fish per surface acre. However, some large bass and bluegills will grow in most ponds, especially if they are well-managed.

This bulletin is devoted to largemouth bass and bluegill sunfish, two good eating warm water game fish which, under proper management, grow nicely in many Oregon ponds. Research is in progress on black crappie, white crappie, yellow perch, and the bullhead catfishes. Your local County Extension Agent or Regional Game Commission Office will have information on these fishes as it becomes available.

How Do Bass and Bluegill Reproduce?

Both bass and bluegill sunfish spawn in ponds. In Oregon, largemouth bass usually spawn at 36 months of age, although spawning has been observed at 24 months of age in a few ponds. Watch for possible spawning by 2 year old bass in your pond which may be helpful to you. Bass usually spawn in June in the Willamette Valley and earlier in Jackson and Josephine counties depending upon water temperature. When temperature of the deeper water reaches and remains at 65 degrees or above, bass are usually ready to spawn. Check your water temperatures and watch for spawning activity when this condition develops in your pond.

Bluegill sunfish prefer a temperature of around 80 degrees F. before spawning, although it has spawned in water as low as 75 degrees F. Even if the bluegill is only 2½ to 3 inches long, it will spawn several thousand eggs when it becomes 1 year old. Moreover, there will be a succession of bluegills spawning all summer long in the Willamette Valley once spawning has begun. The first bluegills on the nest can be seen in the latter part of June,

but actual spawning may not begin until early July.

Bluegills gather in colonies to spawn along shallow, exposed shore lines often in only a foot of water. The eggs, depending on water temperatures, are capable of hatching in about 5 to 10 days.

In managing these fish in your pond, look for bass to spawn first. They spawn in varying depths of water and under various conditions. Submerged logs or stumps about 2 feet under surface are favorite sites for bass, but hard bottom materials have also been spawning sites. A 1-pound female can produce about 1,000 eggs.

What Bass and Bluegill Combinations Are Best?

The best combinations or ratios of bass to bluegills in Oregon has not been determined, and conditions vary greatly throughout the state. Sufficient observations have been made to indicate that recommendations determined for other states do not necessarily apply in Oregon.

Largemouth bass is a predator, and bluegill sunfish is primarily an insect feeder. Bluegills are very prolific and generally feed upon bug life in water. Bass usually consume small bluegills for a forage fish. A major problem in pond management is to maintain a balance in numbers between the predator and the prolific forage fish. When the correct ratio is maintained, the pond is said to be in balance and should produce the best fishing.

Western Oregon, Jackson, and Josephine Counties

In the Willamette Valley and Jackson and Josephine Counties, ponds stocked with bass alone have produced good family fishing. There have been indications that the stocking of 400 fingerling bass per acre is successful. This stocking rate has produced excellent fishing for 9-inch bass by September of the second summer or when the bass are 16 months old.

The usual procedure is to buy yearling bass from a private grower either in the fall or spring. Bass are about the same size either in spring or fall since they make little growth in winter. They usually range in size from 3 to 7 inches, depending on available food supplies and water temperatures. For

Eastern Oregon: These 4-pound bass were grown in well-managed ponds.

Central Oregon: These bluegill sunfish were grown in a bass-bluegill pond.

family use, the stocking of bass alone is presently preferred in this area.

For reasons unknown, the bass and bluegill combination has not produced good fishing for more than 3 or 4 years. This may be the result of shorter growing seasons or a definite preference by Oregon bass to eat insects or a combination of both. However, these 3 or 4 years can provide excellent fishing. The following is a description of one of the better methods and results of stocking a combination of bass and bluegills:

Fall or spring stocking of 250 fingerling largemouth bass plus 250 fingerling bluegill sunfish per surface acre has produced some good fishing in Willamette Valley ponds. Similar developments have been observed in Jackson and Josephine counties.

Bluegills grew fast and produced hook and line fishing the first summer after stocking. Most of the bluegills were about 5 inches long, in good condition, and big enough for table use. Some grew to 6 inches by fall. Bass were from 6 to 9 inches in length by fall of the first summer after stocking and at 16 months of age. It appears advisable to release bass at this age and size to obtain better fishing later. Bass generally consume many of the newly-hatched bluegills, and at the same time, grow larger themselves.

Bluegill sunfish have consistently spawned for 2 summers before bass have spawned. Their offspring overpopulated ponds and none of them ever grew large enough to provide fishing. Bluegill fishing was provided by the originally stocked fish and not by their offspring. Under crowded conditions created by thousands of hatched bluegills, the largemouth bass has not been able to produce enough young to compete with the bluegills. Poor fishing resulted as the number of small bluegills continued to increase while the bass population declined.

This stocking rate and combination has produced good bluegill fishing for two seasons but a poor season in the third year. The following years have produced little or no bluegill fishing although there were numerous small ones in the ponds. After 3 or 4 years, if your pond has been stocked in this manner, it is best to drain the pond and start over again in order to provide yourself with good fishing for either or both species of fish.

Central Oregon

Warm water game fish ponds in Central Oregon have produced good and bad results. Ponds owned by Roscoe Links and Phil Farrell of Agency Plains, Marcel Sandoz from south of Madras, and M. A. Coleman of Terrebone have produced both bluegills and largemouth bass. Biological conditions have varied in these ponds, making it difficult to determine management practices for this area.

For example, conditions in Farrell's pond were conducive to prolific bluegill spawning, while bluegills in Sandoz's pond spawned just once during the year in the first week of August. Bluegill sunfish seem to be disappearing while bass are increasing in Sandoz's pond. The opposite has been observed in Farrell's pond. To grow larger bluegills, it has been necessary to seine the pond annually to remove thousands of 2- and 3-inch bluegills.

Available data indicate that good fishing is possible by stocking bass fingerlings at a rate of 400 per surface acre and by waiting until bass have spawned once before introducing bluegill sunfish. This would probably require 3 years, but the bass can provide good fishing in the meantime. Bluegill

Washington County: These 3-year-old bass spawned at 24 months. Larger size bass may promote earlier maturity.

sunfish reached 9½ inches and 12 ounces in Coleman's pond. In 3 years, largemouth bass reached 12 inches and 1 pound in Farrell's pond. As in other Central Oregon ponds, these bass did not spawn until they were 3 years old.

Since it is difficult to purchase bass in Central Oregon, it seems logical to consider the stocking of adult largemouth bass and adult bluegill sunfish. However, it is usually difficult or impossible to buy sufficient adult stocks for best stocking ratios. Despite these difficulties, the Sandoz pond was stocked in this manner with good results. The stocking was done in cooperation with Bill Rasher and the Oregon State Game Commission who planted adults at the rate of about 500 per acre. Fishing was started soon thereafter.

Columbia Basin and Wasco County

Largemouth bass are growing and reproducing in ponds near The Dalles, but proven stocking recommendations in this area cannot be made on the basis of available information. Observations for Central Oregon ponds may apply since the stocking of 400 fingerling bass per acre has been successful elsewhere in Oregon. This is the suggested rate to try. Your County Agent's office is interested in information on the best stocking policy for your ponds. Any details you may care to share with him will be appreciated and helpful.

More pond work has been done in this area of the state with trout than with warm water game fish. However, work is now progressing and your County Extension Agent should have the latest developments in fish pond management in your area.

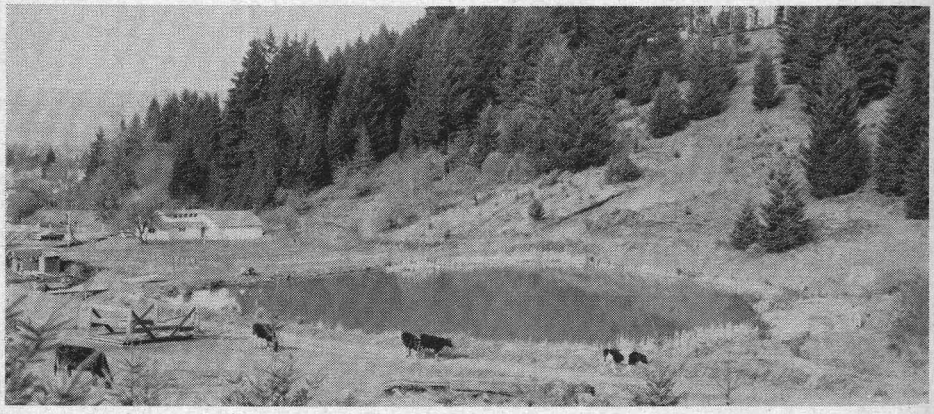
Northeastern Oregon

Largemouth bass are reproducing and growing in at least one private pond in Union County near La Grande. Since information on warm water game fish husbandry in small ponds is not adequate for this area, the best estimate would be to follow the ideas listed for Central Oregon. Check with your County Extension Agent and the Oregon State Game Commission Office for additional information.

Where are Fish for Stocking Available?

Buy your fish from private growers. The Oregon State Game Commission, 1634 S. W. Alder Street, Portland, keeps a current list of private fish growers. This list is also available through your County Extension Office and your Regional Oregon State Game Commission Office.

Before moving any kind of live fish from any body of water, you must first obtain a transportation permit from your local Oregon State Game Commission Regional Office. Write or see them about it.



Farm ponds that drain pasture lands are rich and often good for warm water game fish. Excess water should be diverted from the pond.

What About Pond Size, Plants, and Fertilizer?

Ponds of one surface acre are providing good fishing for family, guests, and neighbors. One-third acre ponds are growing fish, but their size limits fishing at least under natural conditions. Large ponds can produce more fish than a family can use. Consequently, ponds of ½- to 1½-acre size appear most satisfactory for average family uses.

Large vascular type plants are undesirable in bass and bluegill ponds. They eventually interfere with fishing and provide too much escape cover for small fish. Moreover, this condition contributes to overpopulation of stunted fish. If water plants become objectionable in your pond, see your County Extension Agent for recommendations in controlling them.

Phosphorous, nitrogen, and potash are essential elements in growing microscopic plants that are needed in the production of fish food. At this writing, failures and successes in uses of fertilizers have been experienced.

The use of fertilizer has increased the fish food in some ponds, and in others the resulting rank growth of plants has choked the ponds and made fishing difficult. Therefore, Oregon State College is now running fertilizer trials to determine recommended practices. If you care to experiment with fertilizers in growing more fish, your County Extension Agent will be interested in your observations and results.

How Are Bass and Bluegills Caught?

Much has been written on the art of angling for bass, and many methods are effective. In Oregon ponds, the following three methods are helpful if other ideas fail:

Bugs and Flies on Fly Pond

Try bass bugs and streamer flies on a fly rod. If bass bugs worked slowly on the surface do not produce strikes (especially when the bug is twitched and then allowed to remain motionless for a few seconds), try the large streamer fly and fish it at a depth of 1 to 2 feet or deeper. Since largemouth bass in Oregon ponds feed on some insects which pulsate in water, an effective means is to pulsate the streamer fly.

Live Bait or Foreign Objects

Largemouth bass will often ignore plugs. Try for them with live bait such as small live bass 3 to 6 inches long, frog, crayfish, or small bluegill. Note: live fish are used in private waters only since this practice is unlawful in public waters.

Bass are often attracted to foreign objects in water. Take advantage of this trait by using a spinner and night crawler. Drape a night crawler on a big hook and trail it about 6 inches behind the spinner. Let this combination settle to the bottom, lift slowly, and be ready for the "take."

Angle Worm and Cork

Probably the most effective way to catch bluegill sunfish is to use an angle worm and a bobber. Fish at different places around the pond until you catch some bluegills. Then invite your partners to help you fish the area. Angle worms, grasshoppers, larval forms of flies, beetles, and moths are good bait for bluegills. Angle worms are usually the easiest to acquire.

Probably the most sport in catching bluegills is to use a light fly rod, light leaders, and flies. Take your choice of dry or wet flies. Once the feeding fish are located, fishing can be excellent and a great sport. Bluegills of a half pound proportion can give a real fight on the end of a fly line.

COOPERATIVE EXTENSION WORK

In Agriculture and Home Economics

State of Oregon

Oregon State College and the U. S. Department of Agriculture Cooperating

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Oregon State College, Corvallis

Dear Friend:

We are glad to be of service in providing this material in answer to your request.

As you may know, the Cooperative Extension Service is an educational agency of Oregon State College at Corvallis, cooperating with the U. S. Department of Agriculture and the local governing bodies of all counties in the state and a few cities.

The purpose of the Extension Service is to make available to the people of the state the latest information on agriculture and home economics and to help them make use of such information in the improvement of incomes and family living. Extension serves men, women, and—through 4-H club work—boys and girls.

If you are not already acquainted with your County Extension Agents, we hope you will call on them at your first opportunity. They are the local representatives of Oregon State College. They will welcome an opportunity to be of service to you, through an office or telephone call, or, if the problem requires it, through a personal visit to your farm or home.

If our local representatives do not have the information you desire, they may obtain the help and advice of our staff of specialists in various fields of agriculture and home economics at the Campus. In this way, the services of your State College are made available regardless of where you may live in the state. This is a public service and no charge is made to Oregon residents.

Sincerely yours,

F. E. Price

Dean and Director