UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D. C. 20240

THE ROLE OF WESTERN NATIONAL PARK WATERS IN FUTURE TROUT FISHING

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Western National Park waters provide opportunities for anglers to enjoy some of the finest trout angling to be found in the country. Here fishermen participate in the fun of fishing for wild trout in waters difficult to surpass and in surroundings of superlative natural beauty.

National Parks have been set aside by Congress for protection and use as scenic and scientific gems of the highest order. As such they are less vulnerable to many disrupting forces of modern progress which continually endanger and threaten wild trout waters. Headwaters of many park lakes and streams, furthermore, are located "on top of the mountain," protectively situated above many sources of contamination and activities which modify the habitat. Thus these relatively undisturbed waters and the populations of wild trout they contain will play a significant role of ever increasing importance in the future of wild trout fishing in the West.

Western National Monuments and Parks which contain highly satisfactory trout waters and fine populations of wild trout include: Mount McKinley, Olympic, Mount Rainier, Crater Lake, Lassen Volcanic, Yosemite, Sequoia, Kings Canyon, Grand Canyon, Glacier, Yellowstone, Grand Teton and Rocky Mountain National Parks and Glacier Bay, Katmai, Bandelier and Dinosaur National Monuments.

This condition has not always existed, however. When pioneers discovered these areas, they found waters that contained native trout and others which were without fish life.

Ice age glaciers which remolded the landscape wiped out many trout populations that may have existed. Newly formed lakes that occupied deep cirques created by the glaciers were barren. In other localities volcanic activity and lava flows, likewise, diminished original trout populations.

Then as trout attempted to populate these barren waters their upstream movements were effectively halted by waterfalls too high to leap. The story is similar in many parks.

Presented on Panel, "The Future of Wild Trout Fishing in the West," Trout Unlimited National Convention, Aspen, Colorado, September 12, 1964.

In Yosemite National Park, for example, man discovered trout only below the great falls of Yosemite Valley. The vast backcountry in the high Sierras with hundreds of lakes and miles of streams, contained no fish.

On early scientific expeditions into the Yellowstone country, explorers found trout and other fishes only in Yellowstone Lake and its tributaries, in the Madison River, in the Gibbon River, and in Lava Creek. Pliocene lava flows had left the waters on the plateau without fish and high waterfalls had prevented natural replenishment.

The fact that cutthroat trout were found in Yellowstone Lake, high above the falls of the Yellowstone River, proved to be puzzling. Later it was discovered that cutthroat trout that moved up the Snake River had figuratively "climbed over the mountain." At Two Ocean Pass, where the headwaters of the Yellowstone and the Snake Rivers join, the trout from the Snake River made the interchange by passing through the marshy headwaters area and descending into the Yellowstone Lake basin.

Attempts to populate the barren waters with trout began at an early date. Trout, both native and foreign, were planted and transplanted into many of these fishless waters.

From the initial sporadic plantings such as those made by lone cattlemen, who carried a few trout in coffee pots to isolated lakes, trout stocking activities became widespread with the advent of Federal and State fish commissions. The United States Army cavalry troops, the early defenders of the National Parks, were especially interested in placing trout in all available back-country waters and pursued this activity with great zeal.

Few waters in Western National Parks failed to receive introductions of trout of one species or more during the early years of American fish culture or during subsequent years. Great alteration of natural conditions and native trout populations resulted from this activity.

Biological factors and conditions for natural spawning were satisfactory for trout in many barren waters. The trout introduced into such waters became established, and populations of wild trout which resulted are maintained to this day in them entirely by natural reproduction. Such conditions, however, were not present in all waters. In some lakes and streams the introduced trout failed to survive. In others the newcomers replaced the native forms, while in still others both the native and introduced species survived together.

Although adequate areas for natural spawning were absent in some lakes, other conditions proved ideal for trout growth. Populations of trout stocked in such waters gradually diminished unless additional supplementary plantings were made.

This describes the types of trout waters found in Western National Parks today.

Recreational angling is supported in Western National Park waters primarily by the conservative use of wild populations of native and introduced trout that have resulted from natural reproduction. Secondarily, it is maintained by judicial use of hatchery trout stocked sufficiently ahead of the angler to ensure that the trout caught are essentially "wild."

When angler-use becomes greater than wild trout populations can withstand without detrimental effects, regulatory measures are developed to perpetuate recreational angling within the natural capabilities of the wild trout populations. These measures include: lower catch limits, increased size limits, shorter seasons or catch-and-release programs which provide for return of most or all of the trout caught.

By such measures the famed cutthroat trout fishery on Yellowstone Lake is being maintained. These cutthroat trout populations are being perpetuated entirely by the natural spawning in the tributaries of Yellowstone Lake, in spite of ever-increasing fishing pressures. Investigations conducted by the Bureau of Sport Fisheries and Wildlife are assisting the National Park Service in managing this significant resource, which happens to be the largest trout fishery in the country that is being preserved in this manner.

In many lakes found in Western National Parks where natural spawning is absent or insufficient to maintain a fishable population of trout, the National Park Service operates stocking programs in cooperation with the Bureau of Sport Fisheries and Wildlife and the State Fish and Game agencies.

Minimum reliance is placed upon hatchery trout stocked just ahead of the angler. Such artificial embellishment of trout fishing in Western National Park waters is inconsistent with the objective of preserving the enjoyment of park aquatic resources under conditions which are as nearly natural as possible. Only three Western National Park streams receive small plants of catchable-size trout. Stocking in all other waters is composed of fingerling trout. Most of these plants are made in lakes where reasonable return of wild trout may be anticipated. If conditions favor natural spawning of trout in streams, the stocking of fingerlings can be expected to produce minor benefits.

In stocking operations the use of native species of trout is favored wherever feasible. Non-native species are used to supplement populations of those species where replacement by the native forms is impracticable. The frequency of trout stocking and the numbers of fish planted are established so as to best utilize the productive capabilities of the waters in relation to angling pressures.

Modern methods such as planting by airplane have increased the efficiency of stocking with subsequent reduction in cost and effort.

In 1963 a total of 1,660,152 trout were planted in Western National Park waters. This total is divided as follows: rainbow, 1,031,979; brook, 99,132; cutthroat, 405,790; brown, 9,611; golden; 70,400; and lake, 43,240. These plants were made in 120 lakes and 13 streams.

The current and future programs of trout management in Western National Park waters continue to be directed toward:

1. Preservation of native species, sub-species and strains of trout and the natural environments.

2. Perpetuation of opportunities to fish for wild trout by means which will not dilute efforts to maintain and restore native species; will not deplete wild populations of introduced trout; and will not diminish the value of park features of scenic, scientific or historic significance or the enjoyment of them by other park visitors.

3. Restoration of native species in representative waters where the forms were extirpated or reduced through activities of man, such as the introduction of exotic species or strains or through natural phenomena. It is recognized that restoration of native species and original aquatic conditions to all park waters is not practicable for various reasons but efforts will be encouraged to accomplish this objective in selected lakes and streams. Some waters will be established as refuges for rare and endangered species or sub-species and managed in accord with Trout Unlimited's American Trout Policy to maintain healthy, genetically pure, self-perpetuating populations. On such waters fishing for these fishes will be secondary to the preservation and research objectives.

Various trends can be anticipated in the future management of the trout fisheries in Western National Parks.

Fishing pressures upon wild trout populations may be expected to increase. However, it is anticipated that this increase will be at a less rapid rate than the increase in travel to the National Parks for various reasons. Additional trout waters will be created outside park boundaries. These and existing trout waters will be more intensively developed and managed for maximum trout production and angler use. Such waters will attract fishermen who might otherwise fish in park waters. The bulk of trout fishing in National Parks is done by "local" fishermen from the neighboring communities. In their effort to do and see as much as possible during the vacation periods, many park visitors are frequently in "too much of a hurry" to fish in strange waters.

Certain modified regulations will be developed. Longer seasons may be expected on many waters, although shorter seasons will be enforced on others. For example, just recently all of the lower elevation waters in Rocky Mountain National Park were opened on a year-round basis. Some changes in creel limits may be anticipated on certain waters to regulate the catch within the natural capabilities of the wild populations. This is a rationing of the take rather than the recreational experience.

Seasonal catch limits may be developed in the future. Restrictions against even taking any trout out of the park may be established.

No new trout waters may be expected in existing parks as practically all waters suitable for trout have received plantings and are under active management consideration. There may actually be some reduction in trout waters in some parks because of demands to preserve the habitat for wildlife conservation and other objectives. It is anticipated that the number which will be closed for such purposes will be few, however.

In addition to National Parks, the National Park Service administers national recreation areas. Many of these reservoir recreational areas, such as Lake Mead and Lake Mohave, Flaming Gorge and Glen Canyon, contain trout fishery resources of great magnitude. In these areas the management of the trout fishery will be geared to satisfy demands for mass recreation, with opportunities being made available by both natural and artificial measures. The trout fisheries of these national reservoirs are managed by the various State Fish and Game agencies in cooperation with the Bureau of Sport Fisheries and Wildlife. Recreational areas will be administered by policies distinctive from those which guide in the management, preservation and use of National Park resources.

To sum it up, the role of Western National Park waters in future trout fishing will be demonstrated in various ways, including the following:

1. Preservation of natural wild trout waters.

2. Preservation of native strains and species of trout and self-perpetuating forms of introduced trout which have remained unmodified by stocking operations for many generations.

3. Perpetuated native trout and long established populations of introduced trout may serve as sources for eggs and adult stock desirable for reestablishing pure strains and especially adapted forms in waters within and outside the parks. Such use of these resources will be limited so that it will not diminish the wild stock or the fishing opportunities for park visitors.

4. Western National Park trout waters because of their relatively undisturbed condition, may serve as laboratories for trout research when such studies do not alter the natural environment.

5. The significance of the native species, sub-species and strains, and the importance of isolated populations of established introduced trout, will be demonstrated in future research directed toward the development of new techniques and procedures for more exacting taxonomic descriptions. (Fish from isolated waters in Yellowstone have already been used in studies directed toward the refinement of blood serum techniques for identification of trout strains.)

6. Restoration of native species and strains in selected waters and subsequent protective measures.

7. Experimentation with new management techniques and regulations governing angler-use activities may be undertaken in Western National Park waters. (Fishing-For-Fun, catch-and-release programs are currently being employed experimentally on selected waters in several National Parks.)

8. Perpetuation of opportunities to fish for native and wild trout amid surroundings of scenic beauty.

The role of Western National Park waters will become of ever-increasing importance in future trout management, preservation, and recreational angling.

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