THE NATIONAL PARKS 184 EM 3 AND EMERGENCY 1933 CONSERVATION



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE



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THE NATIONAL PARKS AND EMERGENCY CONSERVATION

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THE NATIONAL PARKS AND EMERGENCY CONSERVATION

THE NATIONAL PARK IDEA



ATIONAL parks are distinctly an American institution. The national park idea had its inception in the United States, the first of such parks was established here, and the parks of this country have served as a model for the rest of the world. Sixty-five years ago no national parks existed.

Shortly afterward the Yellowstone was created by act of Congress. Today the United States has 22 national parks. Moreover, these areas have been studied by officials of foreign governments and have served as the basis for park creation and management in Canada and South America, in Europe, and even in Asia and Africa.

Americans may well be proud of their parks. These areas contain the most magnificent scenery in a country replete with scenic features; many of them are of historic interest, some containing the ruined homes and implements of maintaining life of an otherwise forgotten people of a thousand or so years ago; and others are of such scientific interest that some of the best colleges of the country use them as outdoor classrooms in which to conduct summer schools.

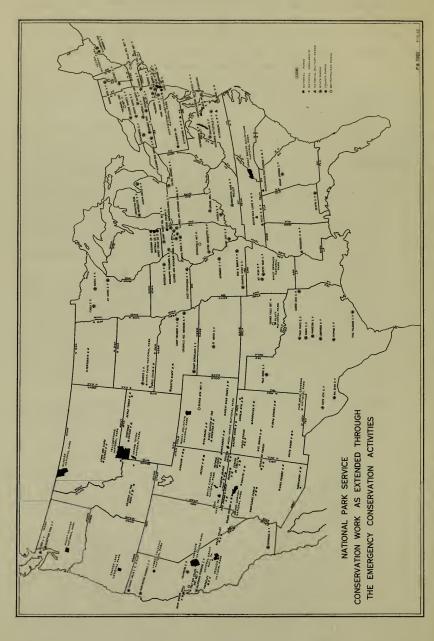
More important yet, from a broad viewpoint, the national park system is a definite expression of the highest in our Ameri-

can code of government—equality for all.

In the United States the best of our natural scenery and our most interesting scientific and historic places are retained in public ownership, for the benefit and use of all the people. In the Old World, before our national park idea was imported

there, the reverse condition obtained.

The history of the social use of lands is interesting. Always in the early days, as one traces the rise and fall of nations, organized government meant organization for the ruling few. The choicest lands were reserved, in princely gardens and forests, for the mighty of the earth. Heavy, almost inhuman, punishments were meted out to the person of humble station who shot a bird or 4-legged animal in a well-stocked preserve maintained for the shooting parties of the lords of the manor.



National Park Service Conservation Work As Extended Through the Emergency Conservation Activities

For instance, when at the height of their power the Kings of England had as one of their most cherished prerogatives the power to convert any area they wished into a preserve for their personal pleasure in the chase. But they went too far, and the people and the barons combined to force on King John that great constitutional code, the Magna Carta, in which were certain laws limiting the kingly powers in regard to disposal of such lands.

It was a far step, in years and in social progress, from King John's time to a day in 1870 when, out on our western frontier, a group of men voluntarily relinquished their legal and moral right to profit through private ownership of the area now included in Yellowstone National Park, and instead started a movement that two years later resulted in the creation of our first national park. Out of this movement also grew the great national forest system mentioned elsewhere in this paper.

During the first three quarters of the nineteenth century the geysers and hot springs formations of the Yellowstone region were visited occasionally by Indians and by white trappers and hunters. Stories of the wonders of the geysers and strange hot springs filtered out. At first disbelieved, eventually they resulted in the official investigation of 1870. As the explorations were about completed, members of the party gathered about the camp fire one evening, discussing the marvels they had seen. They talked of the disposition of the area, all free public lands, suggesting that the individual members file claims, one taking the geysers, another the beautiful canyon of the Yellowstone River, and so on.

Then came the momentous suggestion that resulted in our great national park system. Cornelius Hedges, a lawyer of Montana, advanced the thought that the individuals forego personal gain in order that the region, so unlike anything else in the country, be reserved as a national park for the benefit of the people for all time. The idea caught the imagination of those present and they agreed to return to their homes and work for the establishment of such a park. As a result, Yellowstone National Park was established in 1872 by act of Congress as a "pleasuring ground" for the people of the Nation.

No other national parks were created until 1890, when the Yosemite, Sequoia, and General Grant Parks in California were established, followed in 1899 by Mount Rainier in Washington. Since then the national park system has progressed steadily.

Even before the Yellowstone, however, the United States Government showed its interest in the public ownership of lands valuable from a social-use standpoint. In 1832 the



A Valuable Find at Mesa Verde National Park

Hot Springs Reservation in Arkansas was established by act of Congress, because of the medicinal qualities believed to be contained in the waters. According to tradition, even the Indian tribes of the vicinity, who had long battled for the ownership of the healing waters in which they believed the "Great Spirit" to be ever present, had finally declared a truce under which the benefits were extended to the sick of all tribes. In 1921 the Hot Springs Reservation became a national park. It can in no sense of the word be

called our first national park, however, because in its early reservation there was no idea of park use; it was definitely a place for the treatment of sick people. Now, while the hot springs are still available to the people under proper regulation, the area itself is a beautiful park, with motor roads and trails winding over and around its wooded hills, and recreation and relaxation are stressed almost as much as the use of the hot waters.

NATIONAL PARK IDEALS AND STANDARDS

National parks, always created by act of Congress, are reserved because of some unusual quality or natural wonder, or some historic or scientific feature of national interest. In the field of natural wonders, each park represents the highest type of its particular feature, and duplication of the major features of existing national parks is avoided in enlarging the system. It is important always that each park be sufficiently large to allow of adequate development from the tourist standpoint.

In establishing national parks no thought is given to geographic location. The area proposed for national park use is considered primarily from the standpoint of whether or not its

principal features are of broad, national interest.

No consideration of commercialism enters into park creation. The major function is the promotion of the well-being of Americans through the health-giving qualities of inspiration, relaxation, and recreation in pure, unpolluted air, in natural surroundings of inspiring grandeur.

Many of the parks contain noble forests, but the trees are preserved for their beauty and never considered as lumber. It is a strange fact, but often the trees that add most to the beauty

of the landscape in reality have no commercial value.

There are wild animals in abundance, but they never are considered from the standpoint of food supply. All hunting is forbidden except that called in park parlance "hunting with the camera." Many an erstwhile hunter, having laid down his gun for a camera while in a park, never cares to shoulder a gun again. The gentle-eyed deer becomes a friend, not an intended victim.

There are great waterfalls, but they are never harnessed. Outside the parks are more than enough falls to supply the power needs of the Nation. Those in the parks feed man's hunger for beauty—a demand that, long denied, seems stifled; but that given a chance in the unmarred outdoors thrives and increases and gives man a broader outlook on life.



Bear Feeding Grounds, Yellowstone National Park

THE NATIONAL MONUMENTS

Another group of reservations similar to the national parks in concept and administration are the national monuments. order to insure the protection of places of national interest from a scientific or historic standpoint, Congress in 1906 passed a law known as the "Antiquities Act", which gave to the President of the United States authority "to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States to be national monuments." There are now 66 of these national monuments. Forty of them, with the 22 national parks already mentioned, make up the great national park and monument system now administered by the National Park Service of the Department of the Interior. Sixteen such areas are administered by the Forest Service of the Department of Agriculture, to simplify administration, since they occur on areas already having national forest status. Ten other monuments, established to preserve battlefields and other features important in our military history, are under the jurisdiction of the War Department, as are 13 national military parks. Negotiations have been under way for several years, with the approval of the Secretary of War, to transfer the military parks and monuments to the jurisdiction of the National Park Service, the bureau established by Congress for the express purpose of administering the country's national parks and national monuments.

Because of their similarity in purpose and ideals, all emergency conservation work in the military parks and monuments has been intrusted to the National Park Service, to be conducted along the same general lines as such work in the national parks and monuments under the Department of the Interior.

The exhibits in the national monuments run the gamut from the ruined dwellings of Indians who lived a thousand or so years ago to historic areas of the middle nineteenth century; from trees and plants petrified—apparently turned to stone millions of years ago, to magnificent groves of living trees.

By far the greater number of monuments are rich in human associations. Those of the Southwest in particular are a vast storehouse of treasures of antiquity. Research constantly brings to light new facts about the peoples who lived on that part of the continent long before the footsteps of the first white man were recorded only temporarily in the shifting desert sands.

For instance, by removing tons of earth literally shovelful by shovelful, by hand labor, a few years ago a vast apartment house was uncovered that was built and occupied probably a thousand years ago. Modern man had no such apartment



Horseback Party and Guard House Mountain, Glacier National Park

house until 1887, when the first one was built in New York City. Often a sealed-up cave is opened, to disclose a great earthen jar, perfectly preserved, that was made by hand hundreds of years ago. Such a find makes one think; think particularly of the fact that to make that bowl some person, probably an Indian woman, carried water on her back up a steep cliff from some far-away water hole or creek. Life was a very different thing in those days to what it is now.

PROPOSED INCREASES IN THE PARK AND MONUMENT SYSTEM

The national park system is not yet complete. Nevertheless, only areas which meet the standards set up by the existing major parks are considered for inclusion in the system.

It is hoped eventually to make complete this national gallery of scenic, historic, and scientific displays. In the field of parks, for instance, Congress has already given authority for the addition of four important areas to the system. One is

the Shenandoah Park project in Virginia, important both scenically and historically. Another is the Mammoth Cave region of Kentucky, a lodestone of travel for generations. Isle Royale in Michigan is important for its island beauty and



Measuring the Trails

its great herds of moose. These parks and the Morristown Historical National Park in New Jersey cannot be established until the lands within the approved boundaries have been acquired and donated to the United States.

Of the four, the Morristown Park is nearest completion, and plans now call for the transfer of that area to the Federal Government and its dedication as a national park on the Fourth of July. The date is peculiarly fitting, since the area to be preserved in the new park is one of the most famous areas in Revolutionary War history. Had it not been for Morristown and Baron von Steuben, who drilled the colonial army there, the glorious victory at Yorktown in all probability would not have been possible.

Among other areas which should be included in the park system are the Everglades of Florida and a typical desert-cactus area. New monuments are created from time to time as areas of historic or scientific interest demand national protection.

ESTABLISHMENT AND ORGANIZATION OF THE NATIONAL PARK SERVICE

It was not until 1916, forty-four years after the establishment of Yellowstone National Park, that the National Park Service was created in the Department of the Interior as the definite Federal agency to maintain the areas "dedicated and set apart for the benefit and enjoyment of the people."

Until 1915 the various national parks and national monuments had received limited supervision as part of the miscellaneous work handled in the Office of the Secretary of the Interior. In that year Secretary Franklin K. Lane, realizing the specialized nature of national park work and the desirability of unifying the parks into one definite system, induced Stephen T. Mather, an old college friend and a keen lover of the mountains and the outdoors generally, to accept appointment as his assistant for the purpose of devoting his energies entirely to park matters. After the passage of the act creating the National Park Service, Mr. Mather was appointed its first Director. Horace M. Albright, appointed as Assistant Director of the Service at that time, in 1929 succeeded Mr. Mather as Director.

The general administrative work of the National Park Service is carried on in the Washington office. That is the place where all policy matters are decided; detailed estimates prepared of appropriations needed for park work and accurate cost



Glacier Point Lookout, Yosemite National Park

records kept of every cent of Government money expended; appointments to all field positions considered; broad naturalist and historical programs worked out for field use; and general public relations work maintained, including the preparation and distribution of park literature and visual educational matters of various types.

LOCAL ADMINISTRATION

Each of the national parks is in charge of a local superintendent, who resides in the park and is responsible to the head-quarters office in Washington for all activities within the area under his control. In several of the smaller parks the superintendent has only four or five assistants. In the larger ones,

such as the Yellowstone and the Yosemite, a large force is necessary and includes protective, clerical, educational, and

engineering assistants.

The protective work is done by the ranger force, headed by a chief ranger, who reports to the superintendent. The permanent ranger force is the all-year nucleus around which is built up the larger summer temporary force to handle the increased work of the tourist season. All of the ranger positions, permanent and temporary, are filled by civil-service appointment. Ranger duties include checking travel, directing traffic, enforcing the rules and regulations promulgated by the Secretary of the Interior for the protection of the park, giving information to tourists, fire fighting, improvement of trails, repair of telephone lines, protection of wild animals, fish planting, supervision of camp grounds, and numerous other duties. Owing to the responsibilities and hardships involved in the work, no men under 21 or over 35 years of age are considered for appointment as ranger.

The more important of the national monuments are in charge of local custodians. The group of southwestern national monuments is in charge of a superintendent, through whom the

custodians report.

Through new arrangements with the Civil Service Commission the ranger service in the national parks and monuments has been professionalized and requires a college education. Both permanent and temporary rangers henceforth will be appointed through civil-service examination based not only upon practical protective knowledge but also upon specialized knowledge of biology, geology, forestry, archeology, or history.

EDUCATIONAL USES

As has already been indicated, the national parks and national monuments offer exceptional opportunities for informal education. The education afforded in these areas is not the kind that is acquired in schools or from textbooks. Rather, the city dweller in the parks has an opportunity to acquire, under the leadership of ranger naturalists, information about trees and plants that all skilled woodsmen know almost as second nature. The person untrained in the sciences, seeing a great work of nature such as the Grand Canyon, takes a brief course in popular geology when he inquires of the naturalist as to just how the great gorge came into existence, how long it



Entrance to Giant Forest, Sequoia National Park

was in the making, and why the banded colorings. So with the Yellowstone geyser fields. "What makes the geysers geyze?" is a popular question; "Do the geysers freeze in winter?" is another, and so on. In the Yosemite, seeing great Half Dome towering nearly 5,000 feet above the valley, the natural impulse is to ask what happened to the other half; and here again is a brief lesson in geology.

In other words, the educational service in the national parks and monuments is a definite outgrowth of the demands of visitors for information as to the why and wherefore of the interesting and unusual things encountered along the beaten track or

out-of-the-way trail.

This demand for knowledge is met primarily in two ways—through the ranger naturalist service and through the museums. The ranger naturalists are men and women trained in the sciences and in public contacts. They conduct parties out on



An Indian Dancer at Yosemite

the park trails on short or long trips and give informal talks at the camp fires in the public auto camps, in the lodge and hotel lobbies, and in the museums.

The museums in the parks are designed primarily to interest the average visitor in finding out for himself just what the park has to offer. It has been said that the museum exhibits are in reality only the index to the park itself, which is the real museum of nature.

In the prehistoric monuments, of course, the museum exhibits are different. There one sees on display the implements in use a thousand years ago in grinding corn, and other ordinary routine of life—a sandal or other bit of clothing or personal adornment, and shreds of baskets, and pottery of many designs and colors.

We call visiting one of these prehistoric exhibits an educational proceeding or a study in archeology, but really it is just getting a little first-hand information as to how our neighbors of many centuries ago lived. And we find ourselves quite as curious about them as we are about our next-door neighbors.

WHAT THE LANDSCAPE ARCHITECTS AND ENGINEERS DO

Congress in establishing the National Park Service outlined its function to be the preservation of the national parks, monu-



A Naturalist and His Pet Marmot

ments, and other reservations assigned to its jurisdiction in their natural condition for the use and enjoyment of American citizens of all times.

Carrying out this mandate involves the serious responsibility of conserving the finest natural scenery the country has to offer and of guarding nearly 15,000,000 acres of territory, at the same time making the parks and monuments accessible to nearly 4,000,000 people who visit them annually.

To keep the natural beauty of mountain, forest, lake, and waterfall unspoiled and yet within easy access of such a multi-

tude of visitors is an interesting though often difficult problem. Quoting the landscape architects, upon whom devolves the responsibility for this phase of park activities, the reverse of the famous principle used by the ostrich generally is followed, for roads, trails, and buildings all should provide a maximum of scenic view, at the same time being as inconspicuous as possible themselves.

The landscape process begins with selecting locations which do not tear up the landscape or obtrude into important views.

This is followed by a study of the design, which endeavors to use native materials and other architectural features that will harmonize the structure with its surroundings. The last phase of the problem is the placing of any plant materials necessary to cure

unavoidable damage that may result from the construction.

The range of national park landscape problems is highly interesting and diversified. It runs the gamut from dog kennels in Alaska to colonial plantations in Virginia, from adobe houses with cactus gardens in the Southwest to subarctic roadside plantings in Maine, and from lakeside hotels in Montana to hot-springs developments in Arkansas.

The actual construction work, of course, devolves upon the engineers, and all studies of the physical problems of each park are made by the landscape men, the engineers, and the individual park superintendents, and in special cases



Reforestation

of historical interest by the historians. When a general scheme of development has been arrived at, a so-called "master plan". is prepared by the landscape architects on which is charted an outline of all future construction work. Using this master plan as a guide, designs are then worked out for the individual items, such as roads, buildings, parking areas, bridges, trails, and numerous miscellaneous projects.

The supplying of adequate living accommodations for visitors is an important phase of national park development, especially in those parks handling from 100,000 to nearly half a million visitors annually. The National Park Service, in



he Big Trees

addition to providing roads and trails and the necessary buildings for carrying on the administration of the parks, also provides free public automobile camps. The main camps in the larger parks have all the modern improvements, with water, electric lighting, sanitary conveniences, open fireplaces, and firewood is furnished to all visitors without charge.

Not so many years ago most motorists making use of these camp grounds carried their own equipment, pitched their own tents, and cooked their own meals. But the gradual change in the habits of motorists has brought about the introduction and expansion of house-

keeping cabins and cafeteria service in many larger camps. Experience has proved that the only practicable method of providing accommodations other than the automobile camps is through private capital, operating under Government franchise and close supervision. Hotels, lodges, transportation facilities, and various types of store service all are operated under this plan, as are the housekeeping cabins and

cafeterias in the public camps. Interesting private capital in this development has not always been an easy matter, since the majority of the parks have a short tourist season and in addition are a considerable distance from commercial markets, with resultant increase in cost of commodity purchases. The National Park Service takes into consideration all these factors and also the needs of the public in recommending approval of rates by the Secretary of the Interior. It is an interesting fact that, despite the short operating season and the difficulties of transporting supplies and equipment, rates in the national park hotels and lodges are less than those charged for similar accommodations at popular resorts not under Government control.

MEET THE WILD ANIMALS—ENJOY THE FISHING

One of the most fascinating features of the national parks is the opportunity they afford visitors to meet face to face wild animals such as their pioneer forefathers encountered in moving westward from the Atlantic seaboard. Not so many years ago these animals roamed the entire United States in vast herds. Today, outside of zoological parks, there are comparatively few places where they may be viewed, and of these

places the national parks take first rank.

The park visitors want animal stories, and more animal stories. One that always engenders keen interest is that of the Yellowstone buffalo. Some twenty-odd years ago this animal, which once roamed the plains of the West in countless numbers, had almost disappeared. A few animals were taken into the Yellowstone, formerly a natural range for these great beasts. These animals and the little remnant of the original Yellowstone herds were given protection, with the result that the new herd increased with great rapidity. Several years ago it reached a thousand head, the greatest number that the range in the vicinity of the park buffalo ranch can properly accommodate. Every year since then it has been necessary to give away or otherwise dispose of several hundred surplus animals to keep the buffalo from taking over the administration of the whole park.

While telling the story of the buffalo and of the traits and habits of the various other park animals, the ranger naturalists always explain that the national parks and monuments are absolute game sanctuaries. No hunting is permitted in any of them. It is further explained that this absolute ban on the

killing of animals within the parks and monuments actually is for the benefit of the hunters, for the wild life thrives and multiplies under the protection afforded in these breeding places, and eventually there is an overflow from the parks to the

adjoining territory.

In relating the story of the restocking of the Yellowstone with buffalo, and also with antelope—another plains animal that had almost disappeared—emphasis is laid on the fact that no nonnative species of animal, or plant for that matter, is ever introduced into a national park with the possible exception of game fish of other localities which occasionally are placed in

otherwise barren waters in some park lake.

Bears are a delight to the tourists, except to those who insist upon becoming too familiar with them and get nipped or scratched in reproof. It is often said by the park people that the quality which makes humans so enjoy the antics of the bears is that bruin is so very human in many of his reactions. In a number of the parks bear-feeding grounds provide an interesting and amusing spectacle. To these places are carted the left overs from the lodge and hotel kitchens. The bears become accustomed to the feeding time and congregate each evening for a hand-out of "combination salad."

Many of the bears, sometimes singly and sometimes a mother bear with cubs, loiter along the roads to beg candy from the passing motorists. Feeding these bears is a harmless pastime, so long as the food is thrown. It should never be fed directly from the hand, nor should one ever pretend to have food to make a bear pose for a picture. For the bear dislikes a

practical joke as much as does his human brother.

Glimpses of deer, elk, moose, antelope, and mountain sheep add much to the pleasure of a park trip. There are many smaller animals which provide much amusement, notably the little "picket pins", or ground squirrels, which sit up and beg for food and often climb into a visitor's lap when tactfully coaxed. For the bird lover also the parks are a paradise.

A bird conservation problem that now faces the National Park Service is helping to save the trumpeter swan from extinction. This bird, practically extinct a few years ago, has recently found the Yellowstone region a favorable nesting place, and the National Park Service is doing everything possible to protect the breeding places and the young birds until they become strong enough to fight their own battles. During the last two years a remarkable increase in the number of these swans has been noted.

Although hunting is strictly banned in the national parks,



Tree-Framed View of Mount Rainier

fishing is permitted under regulations that insure against depletion of the fish supply. No fishing licenses are required by the Federal Government, but in several of the parks where the State laws prevail it is necessary to obtain a State fishing license. This applies particularly to Yosemite, Sequoia, Lassen Volcanic, General Grant, Grand Teton, Grand Canyon, Acadia, Wind Cave, Zion, and Bryce Canyon.

The waters of several of the parks contain excellent native game fish, while others at the time of park establishment were practically barren. To insure good fishing, many millions of eyed eggs and fingerlings are planted each year in park lakes and streams through the cooperation of Federal and State fish hatcheries. As a result of these activities there has been a marked

improvement in fishing conditions, with a resultant larger catch per capita of visitors last year than previously reported.

The best fishing, of course, is in the lakes and streams away from the main motor roads. Even along the highways, however, the fish are plentiful, but they also are educated. Constant fishing by amateur fishermen accustom the fish to most forms of artificial bait, so that they become wary—a fact

which adds to the enjoyment of the skilled fisherman. Even the Grand Canyon, in Arizona's semidesert, is fast becoming an angler's paradise through the stocking of Bright Angel and

several other creeks. The large fish hatchery operated at Yellowstone Lake in Yellowstone National Park is a great attraction to visitors. Special guides take parties through at stated hours, and observation platforms and aquaria are so arranged that the entire operation may be easily studied.

The few regulations laid down by the Park Service concerning fishing are all designed to aid fishing conditions. The number and size of fish that may be taken in any one day is limited, according to the supply in a particular body of water. Sometimes, to protect newly planted young fish or promote the come-back of an overfished lake or stream, fishing in particular waters is temporarily suspended.

For the convenience of fishermen who visit the various national parks, the stores in these reservations



A Horseback Party in Yosemite National Park

carry in stock and have on sale each season a large quantity of appropriate fishing tackle and other necessary equipment.

HOW THE MEN OF THE C.C.C. AID CONSERVATION

With the establishment of literally hundreds of emergency conservation camps, approved under the emergency conservation program of the President, a number of our young citizens have an opportunity to help in what is probably the biggest conservation movement in history. The members of the Civilian Conservation Corps, under trained leadership, are directing their efforts toward protecting and in some cases



A Ranger Near Mount Hoffman, Yosemite National Park

improving conditions in the national parks and monuments, the national military parks, the national forests; in State parks and forests; and in various county parks and metropolitan sections of municipal parks. The installation of camps in all these areas has proceeded only upon approval of the President, after consideration of proposed plans by the Director of Emergency Conservation Work and the Special Advisory Council.

Much of the work on the different classes of reservations is the same and is directed primarily toward conservation of forests. The approved types of forest protection now being undertaken include protection against fire and insect infestation, blister rust and tree disease, and roadside fixation and erosion control.

The work is divided into two broad classes, however—conservation for complete preservation in the national parks, monuments, military areas, State parks and allied reservations; and conservation for use in the National and State forests.

In addition to the emergency conservation activities in the 65 camps in the national parks and monuments (as approved June 15, 1933; others to be designated later), the National Park Service has been charged with the administration of the conservation work in 111 camps in the military parks and the State, county, and metropolitan sections, because the same principles of conservation for complete preservation govern all these classes of reservations. Similarly, the Civilian Conservation Corps assigned to work on the State forests are under the direction of the United States Forest Service, where upon wise conservation of tree stands rests the hope of a continuance of our national wood supply, one of our most important natural resources.



Mount Oberlin, Glacier National Park

The conservation activities directed by the National Park Service take the form of landscape protection rather than solely forest protection. All work is planned and conducted with detailed attention to the landscape values. Forested areas in these reservations must be kept in their natural condition so far as possible. The removal of underbrush, dead trees, windfalls, and other natural debris from old forests is undertaken only to such an extent as is necessary to remove serious fire hazards. Ground cover is essential in the complete protection

of bird life and small mammals, and also is part of the natural forest scene. Timber-cutting is undertaken only when it is designed to improve the quality of young growth on cut-over or burned-over lands.

To many of the young volunteers of the Civilian Conservation Corps the type of work undertaken is an entirely new experience. The first few weeks at outdoor labor with the ax and shovel are not easy, as the many college men who work in lumber camps during the summer vacations know. Sore muscles rebel at the unaccustomed exercise, but dogged perseverance wins. After a couple of weeks muscles ripple smoothly as the ax is wielded, and there is a feeling of power, of physical fitness, that makes up for the toughening process. The boys are woodsmen now, and like it.

It is the hope of the National Park Service that many men now in the emergency conservation work may find the activities so to their liking that when the emergency is over they will continue to devote themselves to conservation, perhaps finding that their life work lies in a national or State park.

Certainly future visitors to the parks and monuments will get an added degree of enjoyment of the natural beauties they behold as a result of the loyal efforts of the Civilian Conservation Corps. It may be that some of the magnificent tree stands will owe their continued existence to the present conservation activities against fire and various tree blights; that control of erosion along roadsides may mean the salvation of other objects of beauty. The youthful conservation workers, when mature men, doubtless will feel an increased interest in these great outdoor wonderlands for which they personally are doing so much.



Scene in Grand Teton National Park



Nature Guide Party on Top of Eagle Peak, Yosemite National Park

THE NATIONAL PARKS AT A GLANCE

Acadia, in Maine, contains a group of granite mountains on Mount Desert Island and a beautiful promontory on the opposite mainland across Frenchmans Bay. The only place on the eastern seaboard where sea and mountain meet.

Bryce Canyon, in Utah, is a great amphitheater cut by erosion a thousand feet into the pink and white limy sandstones of the Paunsaugunt Plateau, and filled to the brim with myriads of fantastic figures carved by weathering influences, chiefly running water, wind, and changes in temperature. The amphitheater is 3 miles in length and about 2 miles wide.

Carlsbad Caverns, in New Mexico, a series of connected caverns of unusual magnificence and extent, located in the rugged foothills of the Guadalupe Mountains. The limestone decorations of these caverns are superb.

Crater Lake, in Oregon, is famous principally for its large lake of extraordinary blue, located in the crater of an extinct volcano and encircled by thousand-foot crater walls interestingly sculptured and tinted. The lake is 6 miles in diameter, with a maximum depth of 2,000 feet.

General Grant, in California, contains the famous General Grant tree, one of the oldest and largest of the sequoia trees, and other interesting sequoias.

Glacier, in Montana, is a region of rugged colorful mountains containing 250 glacier-fed lakes of unusual beauty. In it are 60 small glaciers, the remnants of the once mighty ice sheets that ages ago covered this area. Its precipices, thousands of feet deep, afford interesting material for the study of geology

Grand Canyon, in Arizona, contains the most spectacular portion of the Grand Canyon of the Colorado River. This gorgeously colored canyon is the world's greatest example of stream erosion. It is nearly a mile deep and at its widest portion within the park is 18 miles across.



Little Bald Mountain, Great Smoky Mountains National Park

Grand Teton, in Wyoming, includes the Grand Teton Mountain group, one of the noblest mountain massings of the world and one of the few that can be described accurately as cathedral-like.

Great Smoky Mountains, in North Carolina and Tennessee, contains the most massive mountain uplift in eastern United States. In this area is the finest virgin hardwood forest in the United States, and also the largest virgin forest of red spruce. No other known area of equal size contains such a variety of plant life.

Hawaii, in the Territory of Hawaii, includes the summits of three famous volcanoes, extinct Haleakala, on the Island of Maui, with a crater large enough to hold a fair-sized city, and the active volcanoes of Mauna Loa and Kilauea on the Island of Hawaii. Kilauea is known especially for the turbulent lake of fire that at times fills its crater. Tree ferns and other tropical vegetation add to the beauty of the park.

Hot Springs, in Arkansas, is known for its hot waters, believed to possess healing properties since the days of the early Indians, long before the coming of the white man. Located in the picturesque Ouachita Mountains.

Lassen Volcanic, in northern California, contains the most recently active volcano in the 48 States, having erupted less than 20 years ago. The park is an interesting exhibit of cinder cones, mud geysers, springs, and lava beds.

Mesa Verde, in Colorado, has perhaps the most dramatic qualities of any park of the system. In it are the ruined homes of people who lived a thousand or so years ago and then disappeared, leaving behind them great communal dwellings. Cliff Palace, one of the community homes, contained at least 200 dwelling rooms before its upper walls crumbled into ruins.

Mount McKinley, in Alaska, has as its main scenic feature the mountain for which it was named. This great peak reaches an altitude of 20,300 feet and is the highest in North America. It rises higher above the surrounding country than any other mountain in the world, not excepting the Himalayas. The park was established to afford protection to its interesting herds of caribou and mountain sheep.

Mount Rainier, in Washington, contains the largest accessible single-glacier peak system in the United States, spreading out and down over the sides of an extinct volcano. From the summit and cirque of Mount Rainier 28 named glaciers move slowly downward, and there are others unnamed. The park also is famous for its wild-flower fields.

Platt, in Oklahoma, is another area of hot springs and other waters believed to possess medicinal qualities.

Rocky Mountain, in Colorado, is a splendidly representative section of the Rockies. In nobility, in sheer glory of stalwart beauty, it would be difficult to find a mountain group that could excel the snow-capped peaks standing at parade behind the famous Longs Peak.

Sequoia, in California, contains magnificent groves of sequoias or big trees, the oldest and largest of living things. The largest, the General Sherman, is nearly 275 feet above its mean base and has a circumference of over a hundred feet. The park also contains a spectacular section of the High Sierra, including Mount Whitney, highest peak in continental United States exclusive of Alaska.



Fire Drill in Sequoia National Park

Wind Cave, in South Dakota, contains a cave with several miles of galleries and numerous rooms, decorated with many beautiful crystal formations.

Yellowstone, mostly in Wyoming but with small areas in Montana and Idaho, is the largest of our national parks. It contains, in its six main geyser fields, more and greater geysers than all the rest of the world combined. Another outstanding feature is the Grand Canyon of the Yellowstone, interesting for its gorgeous coloring and interesting waterfalls. As a wild bird and animal preserve it is unequaled in the United States.

Yosemite, in California, is a high mountain park of sheer beauty. In addition to Yosemite Valley, world famed for its loveliness, there are several other valleys of great charm. Many waterfalls of extraordinary height and majesty dash over the high granite cliffs into the valleys below. There are also three groves of sequoia trees.

Zion National Park, in Utah, has as its principal feature Zion Canyon, a superb gorge varying in depth from 1,500 to 2,500 feet. Its precipitous walls are eroded in unusual forms and are vividly colored.

NATIONAL MONUMENTS ADMINISTERED BY THE NATIONAL PARK SERVICE

Arches, Utah, contains extraordinary examples of wind erosion in the form of gigantic arches, windows, and other unique formations.

Aztec Ruins, New Mexico, has a prehistoric ruin of pueblo type containing 500 rooms; also other ruins.

Bandelier, New Mexico, noted for its great number of cliff-dweller ruins of unusual ethnological and educational interest. Some of the tools, implements, and simple household equipment of the former inhabitants have been restored as they were centuries ago. Black Canyon of the Gunnison, Colorado, contains 10 miles of the deepest and most scenic portion of the Black Canyon; is in a predominatingly black or dark-colored granite formation streaked with light-colored granites. With a depth of 1,750 feet, at one point the width of the gorge from rim to rim is only 1,300 feet.

Canyon de Chelly, Arizona, has many cliff dwellings in caves and crevasses containing records of cultural progress covering a longer period than any other ruins so far discovered in the Southwest.

Capulin Mountain, New Mexico, has as its principal feature a huge cinder cone of geologically recent formation.

Casa Grande, Arizona, contains ruins that are one of the most noteworthy relics of a prehistoric age and people within the limits of the United States. These ruins were discovered in 1694.

Chaco Canyon, New Mexico, contains a large number of great prehistoric communal dwellings of intense archeological interest.

Colonial, Virginia, containing three areas of historic importance in our colonial history with a connecting parkway—Jamestown Island, site of first permanent English settlement in America; the historic colonial town of Williamsburg; and Yorktown, where the culminating battle of the Revolution was fought.

Colorado, Colorado, is a wonderful example of erosion, with lofty

Craters of the Moon, Idaho, contains remarkable fissure eruptions, volcanic cones, craters, lava flows, caves, and other volcanic phenomena.

Death Valley, California, a fascinating desert region, including the lowest point in the United States, 270 feet below sea level, is interesting for its historical associations, geology, and plant life.

Devils Tower, Wyoming, contains a remarkable natural rock tower of volcanic origin over 1,200 feet high.

Dinosaur, Utah, has the fossil remains of great prehistoric animals.

El Morro, New Mexico, contains an enormous sandstone rock eroded in the form of a castle upon which inscriptions were carved by the early Spanish explorers; also cliff-dweller ruins.

Fossil Cycad, South Dakota, has deposits of interesting plant fossils.

George Washington Birthplace, Virginia, includes the site of the birthplace of George Washington where upon the old foundations the birth house has been reproduced as far as possible; also the old family burial plot with graves of George Washington's father, grandfather, and great-grandfather.

Glacier Bay, Alaska, contains great tidewater glaciers of keen scientific interest.

Gran Quivira, New Mexico, has one of the most important of the earliest Spanish mission ruins in the Southwest and also pueblo ruins.

Grand Canyon, Arizona, adjoining the Grand Canyon National Park. This monument provides new views of the famous Grand Canyon.

Great Sand Dunes, Colorado, contains sand dunes which are among the largest and highest if not the greatest of any such dunes in the United States.

Hovenweep, Utah and Colorado, has four groups of historic towers, pueblos, and cliff dwellings.

Katmai, Alaska, is a dying volcanic region of scientific interest; includes the Valley of Ten Thousand Smokes.

Lewis and Clark Cavern, Montana, is an immense limestone cavern decorated with stalactite formations.

Montezuma Castle, Arizona, contains a prehistoric cliff-dweller ruin of unusual size, situated in a niche in face of a vertical cliff.

Muir Woods, California, is notable for its great grove of redwood trees.

Natural Bridges, Utah, has three natural bridges, the largest being 223 feet high and 65 feet thick at the top of the arch.

Navajo, Arizona, has numerous cliff-dweller ruins in a good state of preservation.

Petrified Forest, Arizona, is of great scientific interest because of its abundance of petrified coniferous trees, one of which forms a natural bridge.

Pinnacles, California, has many spire-like rock formations 600 to 1,000 feet high, and also numerous caves and other formations.

Pipe Spring, Arizona, contains an old stone fort, connected with early Mormon history, and a spring of pure water, most important to the early pioneers in the desert region.

Rainbow Bridge, Utah, is a unique natural bridge in the shape of a rainbow. This bridge, very symmetrical in form, rises 300 feet above the water.

Scotts Bluff, Nebraska, is a region of historic and scientific interest. Many famous old trails traversed by the early pioneers passed this way.

Shoshone Cavern, Wyoming, is a cave of considerable extent decorated with incrustations of crystals.

Sitka, Alaska, contains 16 totem poles of the best native workmanship; is of historic interest in the history of the Russians and early Indians.

Tumacacori, Arizona, contains a ruined Franciscan mission dating back to the seventeenth century.

Verendrye, North Dakota, includes Crowhigh Butte, from which explorer Verendrye first beheld land beyond the Mississippi River.

White Sands, New Mexico, is an area of glistening sands or deposits of wind-blown gypsum almost crystal clear and in a bright light resembling a vast snow field; has interesting plant and animal life.

Wupatki, Arizona, contains prehistoric dwellings of ancestors of Hopi Indians.

Yucca House, Colorado, has great mounds containing prehistoric ruins which when excavated are estimated to be of great archeological interest and educational value.

The National Parks and Emergency Conservation

NATIONAL MILITARY PARKS IN WHICH CONSERVATION WORK IS BEING CONDUCTED

Military park	State	Number of camps
Chickamauga-Chattanooga Shiloh Meriwether Lewis Gettysburg Vicksburg Fredericksburg Battlefield Petersburg	Tennesseedo PennsylvaniaMississippi. Virginia	I I I I

STATE AND COUNTY PARKS AND METROPOLITAN SECTIONS OF CITY PARKS IN WHICH EMERGENCY CONSERVATION WORK IS BEING CONDUCTED

		i	
State	County	Name of park	Number of camps
Alabama	Geneva	Geneva	ı
Arkansas	Conway	Petit Jean	ī
121 1221000 1111111	Pope	Mount Nebo	ī
California	Calaveras	Calaveras Big Trees	ī
Cultivitue	Humboldt	Burlington-Humboldt	ī
	Santa Cruz	California Red Wood	ž
	Contra Costa and	East Bay Utility District	T
	Alameda.	Sust Day Other, District	•
	San Diego	Cuyamaca Rancho	I
	Del Norte	Prairie Creek	I
Colorado	Jefferson	Denver Mountain	2
Georgia	Butts	Indian Springs	I
Illinois	Cook	Chicago-Lemont	I
	Will	Lemont-Brandon	I
	do	Brandon-Channahon	1
	Grundy	Channahon-Morris	I
	La Salle	Morris-Marseillas	I
	Sangamon	Springfield Metropolitan	2
	La Šalle	Starved Rock	I
	Jersey	Pere Marquette	I
	Carroll	Mississippi Palisades	I
	Jackson and Union.	Giant City	1
	Cook	Skokie Lagoon	5
	Winnebago	Camp Grant Mil. Reservation.	6
Indiana	Lawrence	Spring Mill	I
	Spencer	Lincoln	I
Iowa	Van Buren	Lacey-Keosauqua	I
	Jefferson	Mills and Farmington	I
	Henry		
	Des Moines	• • • • • • • • • • • • • • • • • • • •	
	Lee	• • • • • • • • • • • • • • • • • • • •	
	Delaware		I
	Clayton		I
	Winneshiek	• • • • • • • • • • • • • • • • • • • •	
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	Buchanan	• • • • • • • • • • • • • • • • • • • •	
	Dubuque	• • • • • • • • • • • • • • • • • • • •	

The National Parks and Emergency Conservation

State, etc., parks in which emergency conservation work is being conducted—Cont.

State	County	Name of park	Number of camps
Kansas	Ellis	Fort Hays	I
Kentucky	Hart, Barren, and Edmonson.	Mammoth Cave	I
Maine	Hancock	Ellsworth-Bar Harbor Blue Hills Reservation	I
Michigan	Bristol	Fall River	I
Minnesota	MasonClearwater	Ludington-Pere Marquette Itasca	I
Willinesota	Hubbard, Becker		
	Carlton	Jay Cooke	I
Missouri	Franklin	Meramec	I
Nebraska	Wayne Scarpy	Sam A. Baker	I
210022000000	Dodge	Camp Fremont	I
New Jersey	Dundy	Camp Benkelman	I
New York	Essex	EssexPalisades	2
	Columbia	Taconic Letchworth	2 I
	Tomkins	Enfield	I
	Westchesterdo	Blue Mountain	I
	Oswego	Selkirk Shores. Gilbert Lake.	ī
	Otesgo Onondaga	Green Lakes	I
	Broome	Chenango Valley	I
Ohio	Allegany Lucas	Quaker Run	I
Oklahoma Pennsylvania	Murray	Turner Falls	I
South Dakota	Clarion, Jefferson. Custer, Pennington.	Cook Forest	I
Texas	Marion	Caddo Lake	I
	Lampasas	Lampasas Erath	I
	Jeff Davis Hamilton	Davis Mountain	2 I
	Blanco	Blanco Palo Pinto	I
	Matagorda Randall, Armstrong	Tres Palacios	I 5
Vermont	Brewster Windsor	Big Bend	I
	Caledonia	Burke Mountain	I
Virginia	Henrico	Richmond Battlefield Douthat	I
Washington	San Juan Island	Moran Deception Pass	I
Wisconsin	Milwaukeedodo	Sheridan Park	I
	do	Honey Creek Parkway	I



