

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1
7000000

COCONINO

U. S. F. S. RECEIVED
LIBRARY
NOV 12 1940

NATIONAL FOREST

ARIZONA



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

1
F769 Coc

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



BOOK NUMBER

1
F769 Coc

copy 1

ON THE COVER

San Francisco Peaks . . . an enduring snowcap crowns these sentinels of the Coconino National Forest, which reach more than 2 miles above sea level to the highest point in Arizona (12,611 feet). A Forest Service road climbs high up the slopes. Hopi Indians revere these peaks as the home of their gods, the "Katchinas."

F-135826



F-323863

A STAND OF PONDEROSA PINE ON THE COCONINO NATIONAL FOREST

COCONINO
NATIONAL FOREST
ARIZONA



UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE • F. A. Silcox, Chief

SOUTHWESTERN REGION • ALBUQUERQUE, N. MEX.

MF-5 R. 3

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1939

MAP

A map of the Coconino National Forest, with details including roads and points of interest, will be found on the inside of the back cover.

FOREWORD

THIS is the story of one of Nature's rich storehouses, one of America's scenic treasure troves - the Coconino National Forest in Arizona. Here one finds new meaning for those much-worn words in our national hymn, "I love thy rocks and rills, thy woods and templed hills . . ."

Nature's lavish carving and coloring and her careful husbandry in this area created a majestic setting for the centuries-old pageant of man's progress from cave life to civilization. He who walks these forest aisles today walks in the footsteps of the cliff-dwelling tribesman, the Spanish explorer, the first missionary, the fearless trapper, the war-painted Apache Indian, the Army man, and the pioneer settler.

"Coconino" comes from the Havasupai Indian word "Kohonino," first applied to a tribe which once existed here.

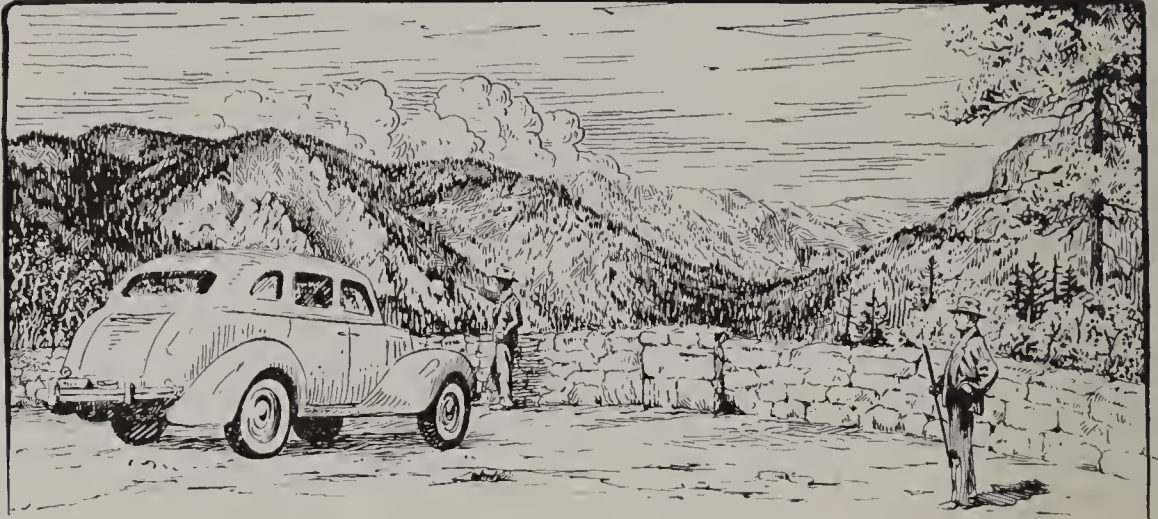
The Coconino National Forest is composed of 1,730,420 acres. Its irregular shape, narrowing upward toward the north, resembles a broadside of one of the high, massive buttes with flat tops that abound along the southern edge of the forest. The forest is 60 miles across at its widest point and 90 miles at its longest point.

The Coconino is situated on the southwestern edge of the Colorado Plateau, and is just north of the geographical center of Arizona. The southern boundary is formed partly by the Verde River and partly by the Mogollon Rim, a magnificent escarpment overlooking the timber-carpeted floor of the Tonto Basin on the Tonto National Forest. Adjoining the Coconino's west boundary are the Prescott National Forest and the Kaibab National Forest. On the east are the Sitgreaves National Forest, private lands, and part of the Navajo Indian Reservation. Northward are the Kaibab National Forest, the Navajo Reservation, and Grand Canyon National Park.

The variety of scenic and recreation attractions in the area of this forest is endless. In the forest itself, there is an extreme range from the semi-desert or Upper Sonoran zone to the timber line or Arctic Alpine zone, with all the accompanying variations in vegetative and animal life.

Most of the Coconino's beauties and wonders are readily accessible. The Santa Fe Railroad crosses the upper width of the forest, as does a trans-

continental highway, U S 66. United States Highway 89 also traverses the northern part of the forest. These and State highways connect with Forest Service highways, roads, and trails to enable the motorist and the hiker to travel far into this enchanting area.



BE EXTRA CAREFUL WITH FIRE,
CIGARETTES, AND MATCHES—ALWAYS URGE
OTHERS TO BE CAREFUL ALWAYS

CAVALCADE OF THE COCONINO



CENTURIES before Columbus was born, a race of humans lived and worked, reared their families and died in the area now embraced by the Coconino National Forest. Those early Americans, ancestors of the Indians who dwell in Arizona today, left as their monuments the many pit dwellings, cliff dwellings, and pueblo ruins.

The vast virgin timber area of the Coconino was a hunting ground for these first inhabitants. Wildlife supported by the forest was a never-failing source of food, and of skins from which to fashion rough garments. The forest supplied wood for fires to cook the food and for warmth; and timbers for the dwellings, first in the cliffside caves which gave protection against enemy tribes, later in the many-roomed structures on open ground which were the first apartment houses in America. Scientists, studying the growth rings in cross sections, have determined that timbers in the ruins of these ancient homes came from trees which grew at least as far back as 575 A. D.

Into the paradise of the Coconino, in the sixteenth century, came disturbing tidings that must have made old councilmen wag their heads—news of strange gods built like men but with fair skins; who rode strange, four-footed creatures and were invulnerable to a warrior's arrows; who carried fearfully wondrous rods that could throw deadly lightning farther than an arrow. Undoubtedly the medicine men must have been provoked to incantations against the new enemy.

First of these white gods to pass this way—first white man on what is today the Coconino National Forest—was Antonio Espejo the Spanish explorer. He arrived about 1582 with a fearless handful of soldiers from New Spain (as Mexico was then known), in search of gold and silver which the Spaniards thought abounded in untold quantities. Espejo passed south of San Francisco Peaks, near the present town of Flagstaff, and continued to a

spot beyond the present forest boundaries where he found silver on Bill Williams Fork, west of Prescott, Ariz.

Two decades passed before Don Juan de Oñate, bent on adding this region to the empire of Spain, proceeded in 1604 with a party of 30 men over Espejo's route. They traveled along the Colorado River to the Gulf of California. The Indians were put into subjection, but the dreams of empire were not long-lived for the proud Spaniards. The myth of invincible white gods died before the century; in the cavaleade of the Coconino there came the Mexican administrator, and finally the herald of another race—the hardy, adventurous American trapper.

The trappers ranged through this forest wilderness from about 1824. There then appeared two new figures, the soldier and the scientist. In the decade following 1850, our Government sent several scientific expeditions with military escorts to investigate the feasibility of a railroad route from the East to the Pacific. Most of them went near the thirty-fifth parallel, which crosses the Coconino National Forest.

Tourists who ride in comfortable automobiles today on U S 66 or traverse the forest by railroad follow the route first laid out in 1857 by Lt. Edward F. Beale for a practicable wagon road across northern Arizona. It is of passing interest that Beale used camels for beasts of burden. They were imported from Asia and Africa by Jefferson Davis, Secretary of War in 1856-57, for experimental use in arid portions of the West. The experiment waned as the Army turned to the Civil War; the camels were turned loose, and roamed in this area for years, gradually dying out.

Camp Verde, a roadside settlement on the Verde River at the southern end of the Coconino National Forest, was originally an Army post. It was the starting point of a military road between Camp Verde and Fort Apache on the Apache Indian Reservation. The road was sometimes called "Old Crook Trail," after General Crook, Indian fighter. It ran along the edge of the Mogollon Rim, and traces of it are still visible where it is occasionally crossed by the modern road built by the Forest Service along the rim.

Close after the troopers came the first settlers. Leading were those successful colonizers, the Mormons. Before the Apaches were subjugated, the Mormons established a settlement at what was then called Pleasant Valley, now covered by Mormon Lake. At a spring, by what is now the edge of the lake, they established a dairy. The spring is now known as Dairy Springs. These pioneers, about 1876, erected a small sawmill, the first in the Coconino area, at the spring about 7 miles southeast of what is now Mormon Lake. The spring is still known as Sawmill Springs.

The oldest sawmill in continuous operation in Arizona was established at Flagstaff in 1882. E. E. Ayer, a Chicago business man, came to Flag-

staff in 1881, founded a lumber company, and built a sawmill the following year. When the railroad reached Flagstaff in 1882, logging boomed to supply the ties and other timbers needed as the rails were pushed forward. Since that day, lumbering has been one of Arizona's important industries.

One of the last encounters between United States Cavalry and Apache Indians occurred on July 17, 1882, not far from the military road on Mogollon Rim. It took place on what is now known as Battleground Ridge, which extends north from the rim, about 7 miles north of General Springs. A marker and tablet denote the site. A band of San Carlos Apaches, who had left their reservation on a marauding excursion, were routed with heavy losses by five troops from the Third and Sixth Cavalry Regiments and a troop of Indians known as Al Sieber's scouts.

Last of the men on horseback, in the historic cavalcade, were the livestock men, attracted by the virgin grass ranges. With them, the cavalcade was completed. The wilderness was conquered, the era of industrial development was begun.

The Coconino National Forest was originally the San Francisco Mountains Forest Reserve, established August 17, 1898, by proclamation of President McKinley. The forest received its present name in 1908, after the designation "forest reserves" had been changed to "national forests" to dispel the impression that resources of the forests were locked up against use for public benefit.

Before the forest area was placed under Federal protection and management, there was nothing to prevent the vital watersheds and timber, grazing, and recreation resources from being despoiled. As a result of protective action by the Government the resources have been kept unimpaired for the delight of visitors and for the benefit of communities and industries dependent upon them.

PRESERVE NATURAL BEAUTY
HELP PREVENT FIRES

“For The Greatest Good”

FOREST ADMINISTRATION



ADMINISTRATION of forest lands totaling almost 2 million acres is a task calling for an efficient organization of men with a knowledge of forestry and a background of experience to apply that knowledge. Complex as their task may be, one simple aim remains uppermost in the minds of the men of the Forest Service. Established when the Forest Service began in 1905, it is to manage the national forests in such a way as to serve “the greatest good of the greatest number in the long run.”

In line with that aim, the Coconino National Forest has not been restricted to any one use, or to use by any one class or any one industry. The forest is managed on the principle of multiple use. Its administration involves the management of watersheds, timber, range, wildlife, and recreation resources, besides coordination of all the various uses of the forest so that the greatest possible benefit may accrue to the public.

Twenty-five percent of all receipts of this forest, from timber sales, grazing permits, etc., is returned to the counties in which the forest is located, to be used for schools and roads. Another 10 percent is devoted to improvement of forest roads and trails in these counties.

Under the enabling act which admitted Arizona to the Union, additional sums are given to the State from national forest receipts, for the common school funds. Annual appropriations by Congress provide large sums for forest road development and for improvement of highways crossing national forests. Ranchers, farmers, and others living in or near the national forest receive free grazing for livestock for domestic use, and free timber for domestic use, granted as an aid to settlement and agricultural development.

The forest supervisor, with headquarters at Flagstaff, Ariz., is in charge of the forest. The forest is divided into six districts, each in charge of a ranger. The public is invited to visit the supervisor’s office or any ranger

station, or write to them. Because the ranger's work requires familiarity with his district, he is in a position to give helpful information to those desiring it.

The ranger's job entails much more than protecting the forest from fires. He supervises small timber sales and cordwood sales; livestock grazing; building and maintenance of minor roads, trails, range fences, and Forest Service telephone lines; the handling of special-use permits, such as for summer cabins and resorts; and other activities necessary in the management of a public forest area.

The map on the inside of the back cover of this booklet shows the locations of the Coconino ranger stations as follows (abbreviated as R. S.):

FLAGSTAFF DISTRICT, Knob Hill R. S., Flagstaff, Ariz.

ELDEN DISTRICT, District Ranger's office in Flagstaff.

OAK CREEK DISTRICT, Sedona R. S., Sedona.

MORMON LAKE DISTRICT, Mormon Lake R. S., Mormon Lake.

LONG VALLEY DISTRICT, Long Valley R. S., Long Valley.

BEAVER CREEK DISTRICT, Beaver Creek R. S., Rimrock.

The public is welcome to visit lookout towers to view the surrounding forest and to see how a distant "smoke" is located and reported. Motor



FIRE-DAMAGED WATERSHED ON THE COLORADO PLATEAU

F-90929

roads lead to most of the towers. Towers of primary importance, occupied throughout the fire season, are on top of Huteh, Elden, and Woody Mountains, and Baker Butte. Others are occupied during periods of extra danger.



F-373668

FIRE LOOKOUT TOWER

If a traveler discovers a forest fire, he should report it without delay to the nearest ranger station, or to a lookout-tower man, a CCC camp, the forest supervisor, a local law officer, or a telephone operator.

If the fire is small, the traveler may be able to put it out by his own effort, or hold it in check until help arrives, and thus prevent a conflagration.

Fires suppressed on the Coconino National Forest each year total around 500. It is not uncommon for 20 or 30 fires to occur in one day during the periods of high hazard. Although lightning is the most common cause, many of the fires are the result of human carelessness and are preventable. Visitors must be careful not to throw away lighted matches or burning tobacco and not to leave camp until their campfire is completely out.

Forest fire detection and suppression become a major activity in the forest from May to September. The yearlong force is supplemented by firemen and lookouts, who are placed at selected points where they can quickly detect fires that may start, and attack them with the least possible delay. The Forest Service network of telephone lines which are connected with the ranger stations, fire dispatchers' and supervisors' offices, makes possible rapid communication. Roads and trails have been built to allow rapid attack on any fire which starts. Tools and water are kept ready for immediate dispatch to a fire.

Each ranger district has a fire plan which, based on long experience and study of factors influencing fire behavior, indicates step by step the action to be taken in making the initial attack on a fire and in mobilizing men, supplies, and equipment under various degrees of burning conditions in order to control the fire while it is yet small. The fire-fighting organization, moving speedily, has the slogan: "Keep them little."

Without Water There Is No Life

WATERSHED VALUES

THE use of surface and underground water from the Coconino National Forest for domestic purposes, irrigation, and water power places a high value on proper management of the watersheds.

The water run-off feeds two important streams: the Little Colorado River, which drains into the Colorado River, contributing to Mead Lake at Boulder Dam; and the Verde River, from which water is diverted for irrigated farms. Water from minor tributaries of the Verde, among them Oak Creek, is used to irrigate areas of highly productive farm land within the forest boundaries.

Flagstaff, a busy lumbering community of approximately 4,000 population, takes its domestic water supply from a basin high among the San Francisco Peaks by means of a long pipe line.

Fossil Springs, rising on this forest, sends its entire output through a flume running for miles along the perpendicular sides of Fossil Creek Canyon, to power houses. Electric power generated by this water goes to Flagstaff, Clarkdale, Cottonwood, and other communities.

FOSSIL SPRINGS IN THE COCONINO, FED BY THE FOREST

F-267778





F-53348

TREES AND GRASS HOLD THE SOIL AND STABILIZE THE RUN-OFF OF WATER

The watersheds influencing these communities and farming areas are protected by Forest Service regulations which aim to prevent abuse of the tree and vegetative cover on the slopes and to stabilize the run-off of water. Trees and vegetative cover help the soil to absorb the snow and rain, permitting it to run off gradually, thus contributing materially to prevention of erosion.

Mormon Lake, located 30 miles south of Flagstaff, is the largest natural body of water in Arizona. It is fed by springs and surface run-off. Mormon Lake, Lake Mary, and the other smaller scenic lakes on the forest attract hundreds of people each summer to healthful recreation and relief from high temperatures in the lowlands, and incidentally contribute profit to hotels, restaurants, and service stations along the routes.

Four Billion Feet of Timber

TREES AS A CROP

THE timber on the Coconino National Forest is in the heart of what is believed to be the largest, practically unbroken belt of ponderosa pine in the United States. This belt extends from the mountains of southern Utah, in a southwesterly direction across Arizona and into New Mexico almost to the Rio Grande River. It is approximately 400 miles long, and has a width varying to a maximum of about 60 miles. It is protected against ruthless exploitation because it lies mostly within national forests, Indian reservations, and national parks.

Timber occupies 800,000 acres of the Coconino's net area of 1,730,420 acres. The volume of this stand is estimated at over 4 billion board feet, the major portion of which is ponderosa pine, most important commercial tree of the Southwest.

The growing of timber is now coming to be recognized as but another form



F-269997

SELECTIVE CUTTING ON THIS AREA LEFT A RESERVE STAND TO ASSURE CONTINUOUS CROPS OF TIMBER



THE PINES CROWD IN ON FLAGSTAFF, ARIZ., A COMMUNITY DEPENDENT IN LARGE DEGREE UPON THE FOREST

of agriculture. Instead of annual crops such as an ordinary farm produces, each acre of a forest in the Southwest which is logged under Forest Service methods will produce a harvest at periods of 60 years. This is accomplished by maintaining the stand in good silvicultural condition; by harvesting only the ripe timber; reserving the young, thrifty, growing trees; removing diseased, defective, and otherwise undesirable trees; making thinnings in the young trees to secure accelerated growth; and insuring reproduction when not already present by the retention of seed trees.

The mature timber is sold to lumber companies on competitive bids, which insures a fair return to the public for its timber. Loggers are required to use methods which will not damage the reserved stand during logging.

One of the most important advantages of the timber management system on the Coconino National Forest is that its provision for a sustained yield of timber makes possible continuous operation for lumber companies and continuous employment for their workers. The human value of sustained yield is well demonstrated by Flagstaff and its 4,000 people. The two large sawmills operated here, along with the attendant woods operations, furnish employment to approximately 500 men. With their families living in town or close to it and spending their income in the town, it is estimated that half the population of Flagstaff is directly dependent on the sawmills. Railroad

employees who send the lumber to market, grocers, merchants, and others in Flagstaff benefit indirectly from the forest industry. The population also benefits directly from tourist business drawn by scenic and recreation advantages of the forest. Altogether, the entire population of the community is affected by the forest resources and their use. The Arizona Lumber & Timber Co. mill at Flagstaff was established in 1882 and has operated continuously for more than a half century.

The timber management plan prepared in written form for the Coconino National Forest, with the benefit of scientific study and field experience over many years, indicates that during the next 40 years a total of almost 2 billion board feet of virgin timber will be used by the local mills. At the end of that time, the timberland first cut over will again be ready for cutting. The two large sawmills at Flagstaff have a combined annual allowable cut of 46 million board feet; it is computed in the timber management plan that 48 million feet of timber can be removed from the forest annually forever. This will be sufficient to maintain permanently the established timber busi-



F-347216

LOADING LOGS ON TRUCK FOR DIRECT HAUL TO MILL.

ness on the forest, including a number of small portable mills operating within the area.

In addition to the saw timber on the forest, there are also extensive areas of woodland growth, consisting of about 5 million cords of piñon, juniper,



F-196627

INSPECTING SEEDLING GROWTH AT FORT VALLEY
EXPERIMENTAL FOREST

and oak. This woodland stand is important not only because of its watershed protection values, but also because of its value as a source of fence posts, fuelwood, and other minor products for local communities and ranches on and adjacent to the forest.

Because of heavy cutting followed by uncontrolled fires previous to their inclusion in the Coconino National Forest, certain areas are in need of artificial planting. With this objective in view, the LeRoux Springs Nursery was established on the forest in 1936. The nursery is located at LeRoux Springs at the base of the San Francisco Peaks, with established seedbeds sufficient to produce 500,000 ponderosa pine seedlings per year. Ultimately, the nursery can be developed to a maximum of 1 million seedlings per year. The nursery is operated

by the local forest staff and surplus transplants will be made available for other national forests in the Southwestern region.

At Fort Valley, also in the proximity of the peaks and only a few miles from Flagstaff by good road, are located the Fort Valley Experimental Forest and the Fort Valley branch of the Southwestern Forest and Range Experiment Station. The station is operated by the Research Division of the Forest Service, in cooperation with the University of Arizona, and has headquarters at Tucson.

Beef and Lamb on the Hoof

GRAZING RESOURCES

TIMBER is not the only product of a national forest. Grassy ranges produce a forage supply of great value to livestock men, especially in the high natural "parks," the low-lying valleys, and the piñon-juniper zone.

The ranges on the Coconino National Forest are used by 26,000 cattle and horses for an average period of 8 months of the year and by 63,000 sheep for an average period of 5 months. Most of those who have permits to graze livestock use the forest for summer range, taking their stock down to the lower country before winter snows set in.

Grazing permit fees are adjusted each year on the basis of livestock market prices for the preceding year. The fees are thus kept in line with current trends. A grazing management plan is in effect for the forest, the same as a management plan is in effect for timber utilization. The problem is the same—to allow use of the forage which otherwise would go to waste each year and at the same time maintain a balance so that overgrazing does not occur with its serious consequences—barren ranges, half-starved livestock, denuded topsoil, too rapid run-off of surface water, and unsteady flow in streams.

Soon after the occupation and settlement of this area, the forage was utilized by roving bands of sheep and herds of cattle which passed from range to range as the forage growth and water supply demanded. No at-



YEARLINGS GOING TO MARKET FROM NATIONAL FOREST RANGE

F-208856



SHEEP ON THE COCONINO NATIONAL FOREST

F-152211

attention was paid in those early days to the carrying capacity of the range; the number of livestock on it was unrestricted. The heavy overgrazing resulted in destruction of the native ground cover, and erosion became active.

Since creation of the national forest, numbers of livestock have been restricted to what the range can support, allowing a small margin for range recovery. The grazing permit issued to each livestock operator allots a certain area for his stock, and the number to be grazed there is specified in accordance with the grazing capacity of the allotted area. Range fences, water source improvements, and other developments made by the Forest Service, in some cases on a cooperative basis, help keep the livestock distributed over the range and tend to prevent overgrazing of any one part.

The ruinous conditions of the early days have been corrected, and the ranges are gradually being restored to their former productivity. In helping to stabilize the livestock industry of this area, the national forest range management plan is contributing to the well-being of the inhabitants.

IF YOU DON'T KNOW—ASK THE FOREST
RANGER

Where Deer and Antelope Roam

WILDLIFE MANAGEMENT

WILDLIFE finds a much-needed shelter on this national forest from the threats of advancing civilization. As timber vanishes from privately owned land, and the plow turns under the native grass on other private land of agricultural value, the wildlife protection afforded by the forest becomes increasingly valuable.

Near-extinction of that shaggy monarch of the West, the buffalo, gave a never-to-be-forgotten lesson in the need of an established system of wildlife management such as exists on this forest. The only herd of buffalo left in Arizona today is that which is owned and protected by the State.



It ranges in Houserock Valley and on the Kaibab National Forest.

Pioneer Arizona was a paradise of small and big game, but man was spendthrift with this heritage. The beginning of this century saw wildlife in a tragic condition. Elk were extinct in the State; antelope, deer, and bear were heading that way. The turning point came about 1915, with public sentiment matched by State game laws.

Protective measures for wildlife on the national forests have been worked out by the Forest Service in cooperation with the Arizona Game and Fish Department and citizens wildlife protective agencies.

Supplying protected areas alone does not solve the wildlife problem. Wildlife can multiply under protection until the number is greater than the natural food supply on the protected area will support. Starvation follows, and the result is as tragic as if no protection had been provided. Experience of Forest Service wildlife specialists has proved that a balance must be preserved, and that when the wildlife multiplies beyond grazing capacity of its habitat, the numbers must be reduced by transplanting or regulated shooting. Transplanting has limited possibilities, because of high cost and physical handicaps involved by the peculiarities of game. Open seasons for hunting, regulated in accordance with careful, periodic studies of wildlife conditions, offer a happy solution.

Each fall, hundreds of sportsmen come to the Coconino to enjoy regulated hunting for elk, deer, and wild turkey. Motorists are frequently de-

lighted by the sight of one or more bands of antelope which range south and east of Mormon Lake and on the edge of timbered areas in the vicinity of Hay Lake, or south of Woods Spring.

Elk, numbering from 3,000 to 4,000, range now over the southern end of the Coconino and the western end of the Sitgreaves National Forests. This is the largest elk herd in Arizona.

Many different kinds of birds live within the Coconino area. Woodland growth in the lower elevations shelters quail in numbers which allow hunting during season. Mesquite, cat-claw, and other vegetation form ideal cover for quail in the Verde River Valley. Wild ducks may nearly always be seen on the lakes south of Flagstaff.

Good trout fishing is available in Oak Creek, West Clear Creek, and Mormon Lake. Trout, bass, and perch may be caught in Mormon Lake, Lake Mary, and Stoneman Lake.



THE ANGLER MAY CHOOSE FROM STREAM OR LAKE.

F-323944

The Latchstring Is Always Out

RECREATION OPPORTUNITIES

THE latchstring is always out on the Coconino National Forest for young and old, rich and poor alike. The innumerable recreation facilities are part of God's great outdoors and are as free as the pine-scented air one breathes out there. All that is expected of visitors is that they be careful with fire, and leave their camp or picnic sites as clean as they themselves would like to find them.

Connecting with the Federal and State highways is a network of 1,200 miles of Forest Service roads and several hundred miles of trails. Although these forest roads and trails were necessary in the first place for purposes of administration, especially for transportation of fire-fighting crews, they also open the way for picnics, camping, scenic drives, hiking, horseback riding, hunting, fishing, mountain climbing, winter sports, nature study, and photography. Roads do not extend into the wilderness areas, but trails permit travel on foot or horseback. Resorts and dude ranches are accessible by the road system.

The forest campgrounds offer tables, benches, fireplaces, pure water, and sanitation facilities. Natural picnic and camping sites abound along roads and trails. In planning the recreation improvements, a main aim was to blend them into the forest background so that man's handiwork would not dominate Nature's.

Outstanding Points of Interest in the Forest

SAN FRANCISCO PEAKS (*immediately north of Flagstaff*). The cool and inviting sight of the San Francisco Peaks beckons the motorist driving over the miles of warm, desolate country on the approach to the Coconino National Forest over United States Highways 66 or 89. There are four of the peaks; named in order from west to east they are Humphrey Peak (12,611 feet, estimated), highest point in Arizona; Agassiz Peak, Fremont Peak, and Doyle Peak. Although of volcanic origin, their slopes are not barren as might be expected, but are verdant with timber.

A mantle of snow which appears of glacier proportions in winter lingers through summer months on the sheltered sides of the tops. Changing moods of the weather give views of ever-new interest, sunlight and shadow play over their rugged contours, rain clouds writhe about them, or winter's winds entice into the blue sky misty streamers of snow spray.



SAN FRANCISCO PEAKS FROM U S 66

Majestic to all humans, the peaks are sacred to the Hopi Indians, who believe the Katchinas, their gods, dwell on the lofty heights from July to December each year, returning to the Hopi villages to sojourn with their earth children until the following summer.

The peaks are part of the San Francisco Mountains, whose volcanic making began a million years ago, geologists say. Eruptions continued until as late as 876 A. D. An inner basin, sheltered by the peaks, is part of a crater, the north side of which disappeared through the ages. In this basin, a number of springs fed by snow provide the pure water which is piped to municipal reservoirs on the edge of Flagstaff.

Attainable points on the peaks give an awe-inspiring view into five States and one foreign country—Arizona, New Mexico, Colorado, Utah, Nevada, and the Republic of Mexico.

A former toll road known as the San Francisco Mountain Scenic Boulevard, ascending to Fremont Saddle, about 11,000 feet up, was taken over by the Forest Service in 1938 and opened to free public travel. It has been renamed Weatherford Road, in honor of its late builder, J. W. Weatherford, a livestock man and hotel proprietor of Flagstaff. The road as it now exists is open only a few months in summer. Several drives on roads through Schultz Pass and to other lower points on the peaks are also popular in the summer.

A remarkably wide range of plant and animal life may be seen in the

San Francisco Mountain region. Within a 50-mile radius, one may see a transition from the Upper Sonoran zone (semidesert) to the Arctic Alpine zone (above timber line). Summer brings out Nature's grandest array of color on plants and trees, and on the plumage of birds. In autumn the aspen groves are of flaming gold.

OAK CREEK CANYON (*13 miles south of Flagstaff, on State Highway 79*). Cutting into the Colorado Plateau to a depth of 1,200 feet and running for a distance of 16 miles, Oak Creek Canyon is an inspiring spectacle. A viewpoint has been constructed by the Arizona Highway Department, where Highway 79 comes to the brink of Oak Creek Canyon. The oil-surfaced highway leads easily down between the walls, which have unusual formations and coloring. Oak Creek tumbles along the canyon floor, adding coolness to the summer attractions and providing fine sport for anglers. The State maintains fish rearing ponds in the upper part of the canyon.

Indian Gardens, where trees arch over the stream, is marked by tradition as the site of early cultivation by Indians.

Four Forest Service campgrounds are located at intervals in the canyon, for public use. They are the Pine Tree Flat, Slide Rock, Banjo Hill, and Manzanita camps.

A number of summer resorts are operated on private land in the canyon.

SCHNEBLEY HILL (*28 miles south of Flagstaff via Munds Park Forest Road*). A giant's ladder would be needed to scale Schnebley Hill, were it not for the Forest Service road which makes the ascent or descent easy for motorists



VIEW FROM SCHNEBLEY HILL ROAD

F-350825

who keep their engines in second gear. This area of multicolored buttes and cliffs is an outstanding part of the Mogollon Rim.

MOGOLLON RIM (70 miles south of Flagstaff, via Mormon Lake and Long Valley). "Mogollon" is a Spanish word, pronounced "mogyey-own." It



F-171960

MOGOLLON RIM TOWERS ABOVE TONTO BASIN

comes from the name of Don Juan Ignacio Flores de Mogollon, captain-general of New Mexico from 1712 to 1715. The rim is sometimes referred to as the Tonto Rim, since it overlooks the Tonto Basin.

The Mogollon Rim is a precipice 2,000 feet high in some places, running in a continuous line for several hundred miles—a line that wiggles in and out sharply as though it were formed by a reptile of Gargantuan size crawling through a bed of mud.

The rim is the abrupt southern edge of the Colorado Plateau. A natural barrier, it winds southeast across Arizona and into New Mexico. It is entwined in Arizona history. The old military road of Indian days ran along the rim for much of its length. The Forest Service road now following the rim crosses the old military road frequently. The

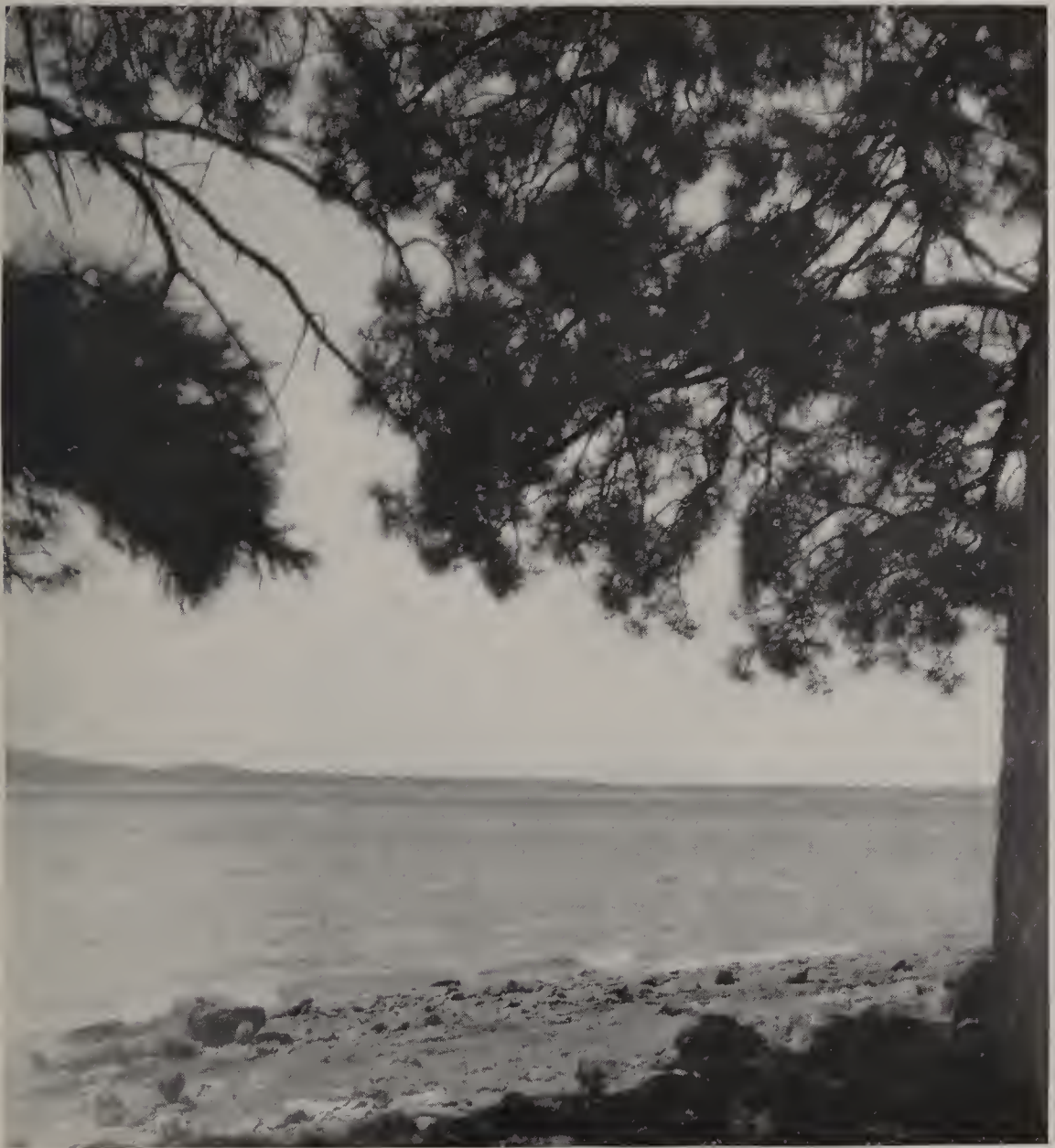
modern road is a connecting link between forest highway 10 (Pine to Winslow) and forest highway 12 (Globe to Holbrook).

Approaching from Flagstaff, one comes to the rim where its steepest drop-off into the Tonto Basin is breath-taking. The road nears the edge now and then, at points where only a few steps are needed to look down. The forest crowds to the very edge, and starts in again at the base. From Baker Butte lookout tower, on a clear day, one can see 150 miles or more to where mountains break the horizon in the distance.

Natural campsites are countless along the road, and several springs provide preferred camping spots. One of these, General Springs, is reported as deriving its name from General Crook, who made this spring one

of his favorite stopping places on the military road during Indian-fighting days. According to this tradition, his men called it "the General's Springs," and the name came down through the years with a slight modification.

MORMON LAKE (*25 miles south of Flagstaff via Long Valley Forest Highway*). Mormon Lake, covering an area of approximately 5,000 acres, attracts great numbers of people each summer with its opportunities for picnicking, camping, fishing, boating, and out-door recreation in the cool pines which fringe the lake shores. Many of the visitors are from the lowlands, seeking relief from high temperatures.



PINES FRINGE MORMON LAKE

F-191301

Old-timers in this area recall when the Mormon settlement of Pleasant Valley occupied the site of Mormon Lake. Springs rising there once flowed into the ground, but a stoppage occurred in some mysterious manner. One theory locally held is that cattle trampling the soil around the springs packed it down until the crevices allowing the water to run off were blocked. At any rate, a natural lake formed about 1895, covering the settlement and the road that served it. The lake went dry about 1904, but filled up again and has not been dry since. Forest campgrounds have been developed along the lake by the Forest Service. Several summer resorts also cater to the seasonal trade.

Mormon Lake Ranger Station is located here. The ranger or the guard on duty will gladly give information on scenic and recreational attractions. In event a forest fire is discovered by any visitor to this vicinity, he should immediately report it to the ranger station.

LAKE MARY (9 miles south of Flagstaff, via Long Valley forest highway). Lake Mary was formed by an earth dam constructed some 30 years ago, in connection with private logging operations. The dam, 1,000 feet long and 30 feet high, was later donated to the Forest Service. The lake is about 5 miles long and covers about 1,200 acres. A forest campground for public use and a resort development are located here.

SYCAMORE CANYON WILD AREA (25 miles southwest of Flagstaff, via Rogers Lake). Covering 47,230 acres on the Coconino and the adjoining Prescott and Kaibab National Forests (about one-half of it in the Coconino), this wild area has been set aside to preserve permanently and as nearly as possible in a primitive condition the canyon types of flora and fauna in northern Arizona. Trails make possible hiking and camping, or pack trips.

OAK CREEK CANYON NATURAL AREA (18 miles south of Flagstaff, via State Highway 79). Although only about 1,000 acres in extent, this area is a beauty spot, with a variety of virgin vegetation. It is on the west fork of Oak Creek, which here runs through a canyon sometimes 1,500 feet deep.

REPORT FOREST FIRES PROMPTLY



SUNSET OVER LAKE MARY

F-349815

FOREST CAMPGROUNDS FOR PUBLIC USE

A complete list of Forest Service campgrounds and their locations is given here, including those which have been mentioned individually in other places. These camps all have essential facilities and are free to the public.

TOWNSEND—U S 66, 6 miles east of Flagstaff, at junction with U S 89.

KIT CARSON—West edge of Flagstaff.

PINE TREE FLAT—Upper end of Oak Creek Canyon, State Highway 79.

SLIDE ROCK—Oak Creek Canyon, State Highway 79.

BANJO BILL—Oak Creek Canyon, State Highway 79.

MANZANITA—Oak Creek Canyon, State Highway 79.

LAKE MARY—At Lake Mary.

DAIRY SPRINGS—West side of Mormon Lake.

DOUBLE SPRINGS—West side of Mormon Lake.

GENERAL SPRINGS—On Rim Road, 9 miles east of Baker Butte.

LEE JOHNSON—On Rim Road, near west end.

CIRCLE DRIVES FROM FLAGSTAFF

SCHNEBLEY HILL — OAK CREEK CANYON, 64½ miles.

MORMON LAKE — SCHNEBLEY HILL — OAK CREEK CANYON, 89 miles.

OAK CREEK CANYON OF SCHNEBLEY HILL — LOWER OAK CREEK — MONTEZUMA CASTLE — MONTEZUMA WELL — MORMON LAKE, 134 miles.

OAK CREEK CANYON — MONTEZUMA CASTLE — CAMP VERDE — FOSSIL CREEK — LONG VALLEY — MORMON LAKE, 178 miles.

METEOR MOUNTAIN — CHAVEZ PASS — MACKS CROSSING — MOGOLLON RIM — MORMON LAKE, 191 miles.

SUNSET CRATER — WUPATKI RUINS — DEADMAN LOOKOUT — SCHULTZ PASS, 75 miles.

SUNSET CRATER — DEADMAN LOOKOUT — KENDRICK PARK — FORT VALLEY, 52 miles.

WILLIAMS — GRAND CANYON — DESERT VIEW — CAMERON, 200 miles.

OAK CREEK CANYON — MINGUS MOUNTAIN — U S 89 to ASHFORK and WILLIAMS, 185 miles.



TOBOGGANEERS AT FOREST SERVICE WINTER SPORTS AREA ON SLOPES OF SAN FRANCISCO PEAKS

OTHER POINTS OF MAJOR INTEREST

PERCIVAL LOWELL ASTRONOMICAL OBSERVATORY, Flagstaff.

MUSEUM OF NORTHERN ARIZONA, 2 miles north of Flagstaff.

SUNSET CRATER NATIONAL MONUMENT, 15 miles north of Flagstaff.

WALNUT CANYON NATIONAL MONUMENT, 9 miles east of Flagstaff.

METEOR MOUNTAIN, 44 miles east of Flagstaff.

MONTEZUMA CASTLE NATIONAL MONUMENT, 75 miles south of Flagstaff.

MONTEZUMA WELL, 8 miles northeast of Montezuma Castle.

WUPATKI NATIONAL MONUMENT, 28 miles northeast of Flagstaff.

GRAND CANYON NATIONAL PARK, 96 miles north of Flagstaff.

PETRIFIED FOREST NATIONAL MONUMENT, 115 miles east of Flagstaff.

PAINTED DESERT, northeast of Flagstaff.

THE FOREST YIELDS HEALTH WEALTH
SECURITY



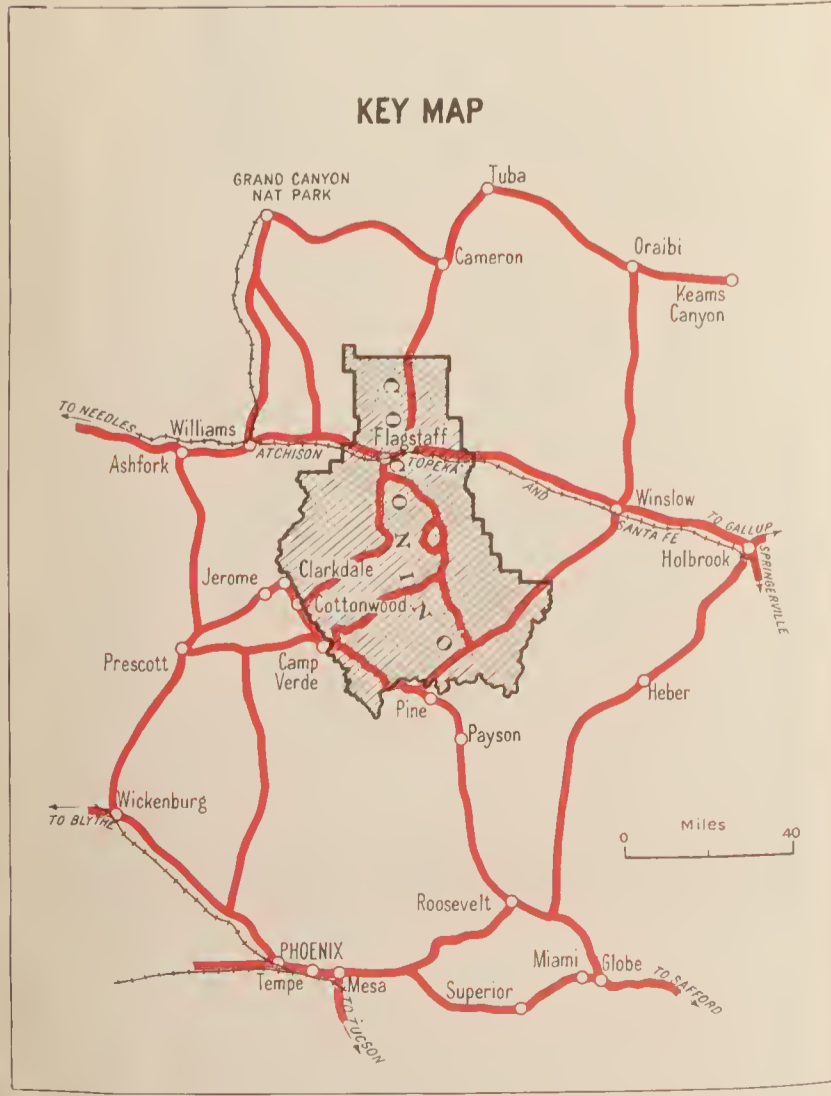
EVERYBODY LOSES WHEN TIMBER BURNS
BE SURE YOUR FIRE IS OUT DEAD OUT

SIX RULES FOR FIRE PREVENTION

1. **MATCHES.** Be sure your match is out. Break it in two before you throw it away.
2. **TOBACCO.** Be sure that pipe ashes and cigar or cigarette stubs are dead before throwing them away. Never throw them into brush, leaves, or needles.
3. **MAKING CAMP.** Before building a fire, scrape away all inflammable material from a spot 5 feet in diameter. Dig a hole in the center and in it build your campfire. Keep your fire small. Never build it against trees or logs or near brush.
4. **BREAKING CAMP.** Never break camp until your fire is out—dead out.
5. **BRUSH BURNING.** Never burn slash or brush in windy weather or while there is the slightest danger that the fire will get away.
6. **HOW TO PUT OUT A CAMPFIRE.** Stir the coals while soaking them with water. Turn small sticks and drench both sides. Wet the ground around the fire. If you can't get water, stir in earth and tread it down until packed tight over and around the fire. Be sure the last spark is dead.

If you find a fire burning, try to put it out if you can. If you cannot put it out notify the nearest forest officer, the sheriff, or the nearest telephone operator.

Every camper should carry a serviceable shovel and light ax. These tools are not only useful in preparing a proper campfire, trenching around the tents, and chopping fuel, but are also of great assistance in combating forest fires and in banking a campfire with earth before leaving camp.



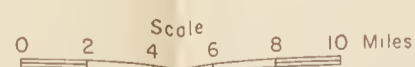
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

F. A. SILCOX, CHIEF
T. W. NORCROSS, CHIEF, DIVISION OF ENGINEERING

COCONINO NATIONAL FOREST

ARIZONA

1939



LEGEND

- | | | | | |
|---------|-----------------------------------|-------|--|---------------------|
| — | NATIONAL FOREST BOUNDARY | 🚒 | SUPERVISOR'S HEADQUARTERS | } REPORT FIRES HERE |
| - - - | ADJACENT NATIONAL FOREST BOUNDARY | 👤 | DISTRICT RANGER STATION | |
| — | PAVED OR GRAVEL ROAD | 👤 | GUARD OR RANGER STATION NOT PERMANENTLY OCCUPIED | |
| - - - | UNSURFACED ROAD | 🏠 | IMPROVED FOREST CAMP | |
| U.S. 66 | U.S. HIGHWAY NUMBERS | 🌊 | SPRING | |
| 79 | STATE HIGHWAY NUMBERS | - - - | GAME OR TURKEY REFUGE BOUNDARY | |
| 🚗 | PERMANENT LOOKOUT STATION | ■ | HOUSE, CABIN OR OTHER BUILDING | |

st Service
National Forest Arizona.

