

KAIBAB

NATIONAL FOREST

ARIZONA



THOUSANDS OF DEAD TREES LEFT BY
ONE FOREST FIRE

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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

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OUR NATIONAL FORESTS

National forests are created and administered as sources of a perpetual supply of timber for homes and industries, and to prevent the destruction of forest and other vegetation which is invaluable in the retarding of erosion and the regulating of stream flow. They are administered by the Forest Service, United States Department of Agriculture. The timber, water, forage, minerals, wildlife, recreation and other resources of the national forests are for the use and enjoyment of all the people.

KAIBAB IS RICH IN HISTORY, ROUGH IN TOPOGRAPHY

THE name "Kaibab" is from the Piute Indian word "Kaibabits," which means "mountain lying down," and was applied by the Indians to the long, low mountain lying north of the Grand Canyon.

The first historical record of this area is a brief account of a small party under Cardenas, who made a side trip from Coronado's Expedition, and visited the Grand Canyon in 1540. It was probably not visited again by white men until the early part of the 19th century, when trappers began pushing their way westward into Arizona. Soon after the Civil War some use was made of the area for livestock. Its modern development did not begin, however, until the construction of the Atlantic & Pacific Railroad, now the "Santa Fe," in the early eighties. Timber and livestock have been and still are the chief industries, with farming next.

In 1893, President Harrison created the Grand Canyon National Forest, which included the forested areas on both sides of the Grand Canyon of the Colorado River, as well as the Canyon itself. Later the forest was divided; the portion north of the Canyon was named Kaibab National Forest, and the portion on the south side, Tusayan National Forest. The area in the vicinity of Williams, Ariz., was added in 1898. The Grand Can-

yon National Park was created in 1919 from parts of these two national forests, and includes the Grand Canyon and some of the timberland on each side of it. The Kaibab and the Tusayan were combined on August 4, 1934, and the name of Kaibab was given to the consolidated unit.

The area north of the Canyon is generally referred to as the Kaibab Division; the area adjoining the Canyon on the south, as the Grand Canyon Division; and the portion surrounding Williams, as the Williams Division. The gross area of the entire forest is 1,865,396 acres.

The Williams and Grand Canyon Divisions of the forest lie near the south edge of the Great Colorado Plateau, with an elevation of from 6,500 to 7,500 feet, and are comparatively level. Occasionally there are solitary mountain peaks of volcanic origin, the highest of which is Kendrick Peak, 10,200 feet in elevation.

The Kaibab Division ranges in elevation from 6,800 feet to more than 9,000 feet. Its principal topographic feature is Kaibab (or Buckskin)



Only in the area of the Kaibab National Forest is the Kaibab Squirrel found in the United States. It is of unusual appearance with tufted ears and a beautiful white tail.



F-253487

One of the roads in the Kaibab, the Grand Canyon Highway to VT Park and the North Rim of the Canyon.

Mountain, which resembles a huge peninsula extending from the highlands of Utah into Arizona. The land on the east and west of this peninsula consists of lower areas of semidesert grassland.

There are no running streams in the forest, although the precipitation varies from approximately 14 inches in some portions to a maximum of 27 inches in other portions. Nearly half of this comes as snow. The summers are cool and the winters not particularly severe, except at the higher elevations.

FOREST ADMINISTRATION

The Kaibab National Forest is one of thirteen in Arizona and New Mexico, making up the Southwestern Region of the United States Forest Service, under the general supervision of the Regional Forester, Albuquerque, N. Mex.

The Forest Supervisor, who maintains an office and staff at Williams, Ariz., is in immediate charge of the forest.

The forest is divided into five ranger districts with a forest ranger, who is really a business manager, in charge of each one. He is in direct contact with conditions on the ground and with local people, and his duties are many and varied. Besides the important task of protecting the forest

from fire, he must supervise the recreational uses of the forest and the grazing of livestock so there will be no damage to the forest and other ground cover that protects the watershed. He must also make timber sales and supervise timber cutting, except in the case of large sales, which are handled by men especially assigned for the job, who mark the timber to be cut, measure the logs, and administer the sale.

The ranger must supervise the construction and maintenance of telephone lines, roads, trails, range improvements, and attend to many other kinds of national-forest business. He is in the field a great deal and is able to furnish reliable information to forest visitors as to location of camp sites, watering places, hunting areas, and the condition of roads and trails. Such information, as well as additional facts about the forest and forest business, is always gladly given both by the Forest Supervisor's office in Williams and by the rangers and guards, whose stations and post offices are:

Camp Clover Ranger Station, Williams, Ariz.

Chalender Ranger Station, Parks, Ariz.

Spring Valley Ranger Station, Parks, Ariz.

Big Springs Ranger Station, Kanab, Utah.

Anita Moqui Ranger Station, Grand Canyon, Ariz.

Hull Tank Guard Station, Grand Canyon, Ariz.

Jacob Lake Guard Station, Kanab, Utah.

Dry Park Guard Station, Kanab, Utah.

VT Ranch Guard Station (at VT store) Kanab, Utah.



Only timber that is ripe for cutting is harvested on the national forests. Here are three big logs in one load cut on the Kaibab.



F 296001

When logging is done under Forest Service supervision, young trees are left to provide for successive crops.

South Canyon Guard Station, Kanab, Utah.

Ryan Ranger Station, with headquarters at Kanab, Utah, is used during certain seasons of the year.

TIMBER RESOURCES

Lumbering operations in the timber belt within the Williams Division of the Kaibab Forest started at the time the old Atlantic & Pacific Railroad was being built westward across Arizona in the late 1880's, the timber cut being used for railroad ties and construction material.

Timber-cutting operations on national-forest lands can be observed from the main highways traversing the Kaibab National Forest. The methods used are part of a plan for obtaining sustained yield of timber by allowing the removal each year of only the volume of timber represented by the year's growth. Wood-using industries and the communities dependent upon them are maintained by the steady yield of timber.

The Forest Service requirements include the marking of only the timber that is ripe for cutting, securing its complete utilization, and reserving the young, fast-growing, healthy trees and other healthy trees of sufficient size to produce seed for a new crop. Although 150 years are necessary to grow a tree to sawlog size in this area, the selection system of cutting will make possible the harvest of a crop every 50 or 60 years.

The growing of timber under such methods is in reality a form of agriculture. Trial of the Forest Service system over a long period of years has

demonstrated that timberlands can be so managed and will yield the benefits expected.

On the Kaibab Forest the stand of sawtimber totals more than 2,400,000,000 board-feet. Approximately 2 billion feet of this is in ponderosa pine, the principal type on the forest. The Kaibab has already produced approximately 850,000,000 board-feet.

In addition to the sawtimber species, there is a vast resource of smaller trees of the woodland species—juniper, pinon, and oak. The juniper is particularly valuable for fence posts because of its long life. It and the other woodland species supply fuel for the adjacent country and give cover for many species of wildlife.

WILDLIFE MANAGEMENT

There is considerable difference in the number and kind of wild animals found on the north and south sides of the Grand Canyon. In past ages, the Canyon to the south and the semidesert country on the other side prevented the migration of animals with the result that animal life developed somewhat differently in this area than in other portions of the West. Now a number of subspecies are found here which do not occur elsewhere in the United States. One of the most notable is the large Kaibab squirrel, which has a grayish-brown body with black belly, tufted ears, and a beautiful white tail, and is of unusual appearance. Through cooperation of the Arizona



F-253508

Deer in the woods on the Kaibab Forest. The photographer had difficulty getting close enough for this one.

State Game Commission, the Forest Service, and the National Park Service all possible means are being taken to protect this squirrel. There is no open season on it, and the possession of either a dead or live specimen or a skin, without a permit, is prohibited.

The mule deer found here is somewhat different in habits from those found in other parts of the State. There are also a number of species of smaller animals and lizards found only in this area.

The Kaibab Division of the forest is an ideal place for mule deer, both as to feed and topography. Before the white man came it provided one of the most productive hunting grounds for the Indians. Hunting by the Indians and later by white settlers, combined with the kill by natural enemies, served to keep the deer in balance with the available forage.

The area was made a national game preserve in 1906. All killing of deer was prohibited, and Government trappers and hunters greatly reduced the number of predatory animals. The result of removing all checks on numbers of deer was an increase in the herd until in 1924 it was estimated to contain as many as 100,000 head. The forage was insufficient to supply so many animals, the range was greatly damaged, and immense numbers of deer perished by starvation.

Reduction measures, such as trapping and shipping live deer to other ranges and the rearing of fawns by hand and transplanting them to other localities were tried in order to remedy these conditions. The only effective means found has been



Not all the deer of the Kaibab are wild. These children have fawns for their playmates.



One of the very few buffalo herds living under wild conditions in the United States is this herd of Houserock Valley, in the Kaibab National Forest.

supervised hunting. Now the hunting season and the "bag" limits are varied to meet conditions. Camps are established to take care of hunters who are required to check in and out of the hunting areas. This makes it possible to direct the hunting to overstocked areas and to spare understocked country. All hunting is prohibited within the Grand Canyon National Park.

The deer have been reduced in total number to a point where there is sufficient forage to maintain them properly. The objectives of the game-management plan, which is in effect through cooperation between the Arizona State Game Department and the Forest Service, are to maintain the deer in their natural state with no attempt to make them tame and no attempt at artificial feeding and to keep them to the number that the forage produced on the range will support.

The annual deer increase is estimated at from ten to twenty percent of the total herd. This number, therefore, may be removed each year through hunting, without depleting the breeding stock. The plentiful supply of deer and the excellent hunting conditions make this area one of the most attractive hunting grounds in the country.

The management plan recognizes that the value of deer is not limited to hunting; and preservation of their aesthetic value by preventing their removal from along roads and easily accessible localities is provided for in the regulations. The deer are readily seen during the summer and are one of the principal attractions to travelers. In the management of the Kaibab deer herd, com-

petitive grazing by domestic livestock is kept at a minimum.

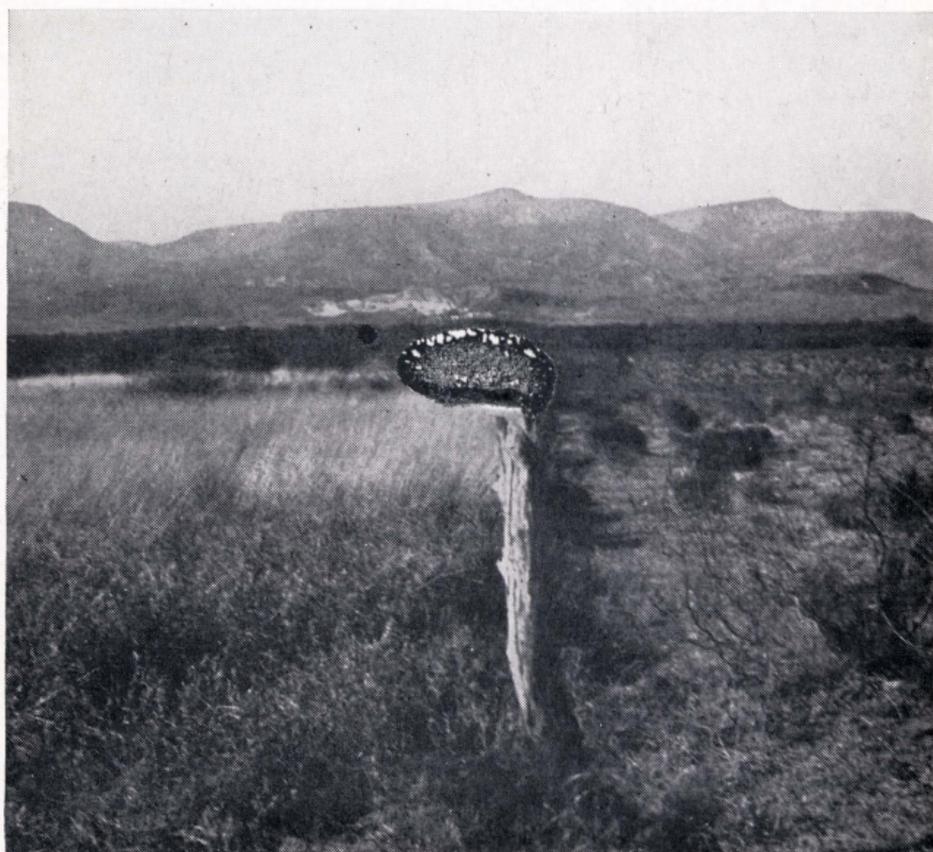
A herd of buffaloes ranges in Houserock Valley on the eastern edge of the Kaibab Division. This herd, which is owned and managed by the State Game Department, is one of the very few living under wild conditions in the United States.

On the division lying south of the Grand Canyon there is a wide variety of wildlife with practically all the game species represented, such as deer, wild turkey, Abert squirrel, black and brown bear, mountain lion, wildcat, ringtail cat, raccoon, fox, and coyote. There are also small numbers of elk and antelope, but these two species are not subject to an open hunting season.

The objective of the Forest Service in the management of wildlife, as well as the other natural resources, is to utilize it and all of its values but at the same time to utilize other values found on the same areas, under a system of multiple use. Success in this objective requires the skillful execution of a carefully planned system for using the resources.

FORAGE FOR LIVESTOCK

The Kaibab National Forest provides range for the grazing of 19,800 cattle and horses and 48,900



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At the left of the fence is winter range, conservatively grazed. On the right in contrast is an area used yearlong and overgrazed.



Good accommodations are available at a number of resorts in the Kaibab. This is Jacob Lake Inn at an elevation of 7,950 feet in the pines.

sheep, under paid permit. Free grazing for an additional 1,600 head of cattle and horses is furnished to settlers and Supai Indians.

Most of the forest has been covered by a range survey, and unit range management plans are in effect. These, in addition to the planning of the best arrangement of range improvements and watering places, provide for a number and distribution of stock which will utilize the annual growth of forage but will not lessen its annual yield. The use and the class of stock are adapted to the specific range unit, and the grazing fees are varied in accordance with the value of the particular range. Ranges which have been depleted through overgrazing or other factors in the past are given special attention in order to bring them back to their maximum productivity.

ROADS AND RECREATION

Transcontinental Highway 66 passes through the Williams Division of the Kaibab National Forest, and Highway 89 running north and south traverses several other portions. Both the north and south entrance roads to the Grand Canyon National Park cross the forest. Numerous side roads provide interesting and instructive trips. The main roads south of the Grand Canyon are open throughout the winter but many of the side roads and those on the Kaibab Division are not always open at that time of year. Information about the condition of roads can always be obtained from forest officers.



F-228336

Killer at bay—a mountain lion cornered by a hunter's hounds in the Kaibab National Forest.

Several artificial lakes have been constructed on the forest, including Whitehorse Lake, J-D Dam, Coleman Lake, Jacob Lake, Kennedy Dam, and others. Some of these provide a limited amount of fishing.

Good accommodations can be obtained at Williams, on both the north and south rims in the Grand Canyon National Park, and at a number of resorts on the national forest, among which are:

Mountain Spring Ranch (with tourist cabins and a store).

Pine Springs Resort (with tourist cabins and a store).

Moqui Camp (with tourist cabins and a store).

Tusayan Camp (with tourist cabins and a store).

Parks Station (with tourist cabins and a store).

Jacob Lake Inn, at an elevation of 7,950 feet in the pines, provides hotel accommodations, camp cabins, lunches, meals, groceries, and curios. Car service is also provided. A free Forest Service campground is nearby.

VT Ranch, at an elevation of over 9,000 feet, is located in the beautiful DeMotte Park. It consists of the Kaibab Lodge with hotel accommodations and also camp cabins.

The Hades Store and Dude Ranch is run in the ranch style with a store, car service, and saddle-horse rental service in connection.

The Grand Canyon Airport is located 17 miles southeast of Grand Canyon, and the VT Airport is near the VT Ranch. In summer, daily airplane

trips are made across the Grand Canyon between them.

There is a well-developed Forest Service camping and picnic area at Whitehorse Lake, south of Williams.

Camping is entirely free on national-forest land and no permit is required, but extreme care should be used with fire, especially during the dry season when the fire hazard is very high in the pines. Wherever possible, it is desired that camping be at the improved Forest Service campgrounds, which provide fireplaces, tables, and sanitary facilities.

The Sycamore Primitive Area, consisting of 47,000 acres in the Sycamore Canyon country, partly on the Kaibab and partly on adjoining forests, has been set aside and preserved in its primitive condition. It contains excellent examples of a wide range of animal and plant life and is extremely rugged in topography. There are no roads and few trails; road and other improvements are excluded, except those absolutely necessary for its proper protection. It will always provide an extremely interesting but difficult trip through an area which for its wildness is surpassed by few spots in the Southwest.

FIRE-CONTROL SYSTEM

Motorways which have been developed on the Kaibab National Forest in accordance with carefully made plans are useful not only for administrative and recreational purposes, but also for quick transportation of fire-suppression crews. Fire-fighters and their equipment are now transported almost entirely by motor, and much less dependence is necessary on horses and pack mules. The increase in mobility is a great aid in prompt attack on fires.

Scores of forest fires break out each year on the Kaibab area. Lightning is frequently a cause, but many of the fires are traceable to human carelessness. Cases of the latter type are due principally to smokers throwing tobacco stubs or ashes into the natural carpet of dry leaves or needles. Visitors whose cars may not be equipped with ash receptacles can enjoy care-free trips if they equip their cars with one of the various types of inexpensive, easily attached ash trays now offered in the auto accessory field.



Fire-lookout tower, combined with an airway beacon, on Bill Williams Mountain.

Fire-lookout towers are maintained at strategic points by the Forest Service, during the summer fire season. On the Kaibab, there are lookout towers at Big Springs, Dry Park, Jacob Lake, Bill Williams Mountain, Kendrick Mountain, Volunteer Mountain, Summit Mountain, Grand View Point, and Skinner Ridge. At other points, trees which afford good views and are accessible from motorways have been equipped with ladders so that lookout men may climb to the tops.

HOW TO PREVENT FIRES

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, cover with earth and tread it down until packed tight over and around the fire. Be sure the last spark is dead.

THE TREE—A FRIEND OF MAN



Ye who pass by and would raise your hand against me, harken ere you harm me! I am the heat of your hearth on cold winter nights; the friendly shade screening you from the summer sun; my fruits are refreshing draughts, quenching your thirst as you journey on.

I am the beam that holds your house, the board of your table, the bed on which you lie, and the timber that builds your boat. I am the handle of your hoe, the door of your homestead, the wood of your cradle, and the shell of your coffin. I am the bread of kindness and the flower of beauty. Ye who pass by, listen to my prayer. *Harm me not!*

(From a sign in the park
of a European city)