

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

I
Information
General
Columbia

FOREST FACTS FOR FOREST OFFICERS
of the
COLUMBIA NATIONAL FOREST



A Series of Factual Information Sheets
Prepared, Published and Distributed
For the Use of All Forest Officers

I
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March 18, 1938

Do You Know? Series No. P-7

FOREST FIRES OF THE COLUMBIA FOREST

The Columbia National Forest has within its boundaries approximately 500,000 acres of burned area. Early records indicate that a portion of this area was burned prior to settlement of the Northwest. One of Captain McClellan's men, Lieutenant S. Mowry, recorded in his diary of 1855; "On leaving the low prairie lands back of Vancouver and gradually penetrating the range of mountains, the atmosphere, clear below, became smoky. This appearance continued throughout the country in the vicinity of the mountains. It is believed to be caused chiefly by the immense fires which, from time to time, are kindled in the forests by the Indians and which lay waste large sections of the country. For scores of miles we marched through a country entirely devastated by this element."

If this be true, it may account for the original Twin Buttes burn which occurred years before record of the area was made by man. Such an aged burn also accounts for the ecological change which has occurred in some parts in that it facilitated the growth of huckleberry bushes which today cover a large area. This fact may also account for the once vast areas of huckleberry fields which McClellan describes being present in the vicinity of Race Track where Indians were congregated for their annual harvest in such numbers that it gave the appearance of a village.

The first written chapter in fire histories of the Columbia Forest, and the worst from the standpoint of lives lost, resulted from the Yacolt fire of September 1902. From a score of unattended and scattered small blazes, nature whipped up a roaring tempest that swept death and destruction over hundreds of thousands of acres in Skamania, Clark, Cowlitz and Lewis Counties. By the most accurate reports 38 dead were identified in the wake of the flames. Property losses ran into the millions. It is estimated that 220,000 acres of forest land, with its 12 billion board feet of timber, were burned over and destroyed.

In the same year, 70,000 acres of the Siouxon country, south of Lewis River, and 85,000 acres of the Cispus watershed burned with an equally devastating result. Although these fires were not as large as the original Yacolt inferno, thousands of acres were burned which in 1918 became a "festered cancer." This third fire, known as the Greenhorn fire, began on

June 12 as a result of a lightning strike near the mouth of Greenhorn Creek. The fire was never controlled and blazed away for the entire summer until put out by the fall rains. Notes on this fire are not complete but it is well known that most of the 1902 burned area was reburned.

Every major fire of subsequent years found its beginning in the "snags and tombstones" of these earlier years. Each succeeding blaze, nurtured into full life by the waste timber and brush of those areas, has taken a greater toll of virgin timber by expanding the boundaries of the stricken area. From 1918 through 1926 fires abated in number but in 1927 the snag lands of the old Yacolt burn, dormant for many years, again became kindled into a holocaust.

Under conditions similar to those of 1902, tendrils of smoke reached into the clear skies from the Dole and Rock Creek valleys in 1927 to warn of another major fire. More than 1000 men were rushed into the areas to stem the advance of the leaping flames which laid waste 47,000 acres (reburn) before they were controlled. Again in the Dole Valley on August 4, 1929 a fire originated in another of the ghost forest areas of the 1902 burn and on September 15, 27 years after the 1902 catastrophe, the fire was fanned into another inferno. The crackling flames spread until another 160,000 acres were laid blackened and barren. As the result of this fire Ranger James H. Huffman contracted a lingering and fatal illness.

In the years that followed no disastrous fires have engulfed such large areas on this Forest.

For comparative purposes, it is interesting to learn of the proportions of the Tillamook or Wilson River fire of 1933 in northwestern Oregon. It is considered one of the nation's most devastating, single conflagrations in fire history. Covering an area of 276,000 acres and killing 10,250,000,000 board feet of Oregon's finest virgin Douglas fir timber, the fire caused the estimated appalling loss to industry, the public and labor of \$350,000,000, with stumpage alone valued at \$20,000,000. (Ref.) (The Timberman, Robert L. Furniss, December, 1937)

Can such conflagrations occur again? It may seem improbable with our fire organization of today, but recounting history of past fires we know that weather conditions play an important part in combatting forest fires. Prompt initial action is our only savior, under extreme conditions and it is here that our protection plans and men are invaluable.

The 1937 fire season had great potentialities of recurrent holocausts. During the 11 day period from July 17 to July 28, 84 lightning fires were reported and suppressed in their incipient stages. The Rock Creek and Spud Hill fires blazed in a twice burned snag area before the flames were subdued. Although these two fires covered only 823 acres of old snags, weather conditions were near right for a revisitation equal in scope to the fires of 1902, 1918 and 1927.

By consulting a Columbia Forest closed area map one can visualize the extent of hazardous areas, which are always potential fires at the touch of a spark. The tinder box on such a vast area of our forest has made necessary the strict enforcement of prevention measures during the fire season. Principal among these is the enforcement of a plan established for the prevention of fires. By proper designation and special proclamation by the State Forester, these areas of high risk are annually closed to public entry from July 1 to October 1. Entrance to such areas, whether by road or trail, is posted by a sign which reads, "Area Closed to All Travel. The Following Described Area is Hereby Designated as an Area of Extreme Fire Hazard."

Although such action may seem unnecessary and unjust in the eyes of some individuals, it is, nevertheless, in keeping with the principle under which the national forests are administered -- the protection of our forest resources.



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Prepared by:
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Information
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Do You Know? Series No. I-7

BRIEF GEOLOGICAL AND HISTORICAL FACTS PERTINENT TO
THE COLUMBIA NATIONAL FOREST

Throughout the ages, nature has written history upon all the land surface of the earth. Man in his explorations, settlements and development of specific areas has himself made history. History, from either source, presents interesting facts, brings to light and accurately accounts for "whys" and "hows" of many things which today come to our attention.

Geological Information

The Columbia Forest, situated along the Cascade divide in southwestern Washington, is rich in geological history. Its vast area, as rugged as any part of the Cascade Range, tells many stories to geologists who, through study of the terrane and location of strata formation, definitely prove the cause and account for effects as we view them today. The most interesting of these include (1) the now extinct volcanos of Mt. Adams, East Crater and Mt. St. Helens, (2) the deposits of sulphur which have been found on Mt. Adams, (3) the tree wells around Spirit Lake, (4) the ice and lava caves east and south of East Crater on the Mt. Adams district, (5) the huge lava fields on the southeast end of the Forest, and (6) the occurrence of coal veins on Summit Creek, Packwood district and Swampy Meadows, Mt. Adams district.

Mt. Adams presents a complex but fascinating history. This interest extends to the area about it, a country of new lava flows which cover much of the older surface. Perhaps the country surrounding East Crater, a now extinct, small volcanic cone is more vividly pictured. Geologists tell us that at one time this was an active volcano which sent forth tons of liquid rock, lava bombs, and blocks. Such quantities of molten lava poured out from the crater that it flowed in a deep stream -- a river of liquid rock. All vegetation was covered; all life in its path was killed, hence our vast beds of lava rock today.

Simultaneous with these gushes of molten lava was the expulsion of lava bombs and blocks, which, being harder composition, were not liquified and thus under terrific pressure were thrust from their source to a distant point, there to lie upon the ground as a loose rock or boulder. In other instances the smaller lava bombs are the result of the solidification of cooling liquid lava as it passes through the air.

Lava is a poor conductor of heat; hence when this lava stream flowed as water, the surface cooled more quickly than below and formed a crust. Under it the lava flowed on and out as the flood stopped, leaving a gallery or flume. Later flows filled these same caverns again and again, adding new strata to its roof, sides and floor, and lessening its bore. Thus, these natural tunnels were made and are to be found today, perhaps not as complete or continuous as originally, but of sufficient size that their history can be traced. Some, whose ceilings became disintegrated by the elements of nature, have been changed into ice caves. These resulted from one end becoming closed so that circulation of air was prevented. Thus, summer air does not displace cold winter air and if the cave has a supply of water, it becomes an ice factory.

Mt. St. Helens has likewise been a volcano which erupted in more recent times. Writings of settlers of the Northwest variously but agreeably describe the eruptions of 1842 and 1859. The outflows of lava from St. Helens have caused immense lava flows but not as extensive as in the case of East Crater. One intrusive flow to the southwest caused the formation of a dam across one of the upper tributaries of the Kalamia River and formed Lake Merrill, which is unique in that it has no surface outlet and appears never to have had one. Other small lakes in this region were similarly formed. Extrusive flows of lava formed the interesting tree wells or lava tree casts which we see today. These vertical casts are explained by study of the man holes which show that the molten lava surrounding standing trees made a natural kiln with heat so intense that the wood was reduced to absolute charcoal.

Another geological story of interest is the Submerged Forest of the Columbia Gorge, now completely and forever inundated by the water impounded by Bonneville Dam. Geologists tell us that at one time the Columbia River flowed to the north side of the gorge in a comparatively narrow but deep channel. At a point approximately below Table Mountain and Greenleaf Peak the waters undermined the basaltic capped mountains by eroding the soft underlying strata of volcanic ash. This in turn caused the mountain to become unstable and resulted in a huge landslide to the south, of such proportions to form a natural dam across the Columbia River. The impounded waters became a huge lake which flooded the gorge for a score of miles above Cascade Rapids. Vegetation, including many trees, was inundated and covered with silt and sediment, in some instances to a depth of 25 feet.

In time, the impounded water rose to the height of the dam and poured over its crest. The water, having this outlet, rapidly cut a channel in the slide material. As the dam was cut down, the lake receded and left exposed the drowned trees -- which we now call the "Submerged Forest of the Columbia Gorge". Several samples of these age old dead trees were secured just before Bonneville Lake was raised in 1938, and can be viewed at Hemlock Ranger Station.

Absence of geological evidence has prevented a definite determination of the age of the historical landslide. However, a comparative study of the ring growth pattern of cross-sections removed from well preserved stumps of the submerged forest and of the older trees which border the gorge was made in an attempt to find an overlapping of ring pattern between the living and the dead. This study only proved that the landslide was more than 260 years ago, with an estimated age of 700 years.

Coal outcroppings occur within the boundaries of the Columbia Forest. Principal among these is the anthracite deposit on Summit Creek which was worked during 1935 and 1936 ~~under special permit from the General Land Office.~~ Three carloads of anthracite coal were reported shipped from the mine in 1936.

Other coal outcroppings have been discovered on Mission Mountain, west of Berry Patch, while coal shale was found on Packwood Lake trail when it was constructed. Reports from the Mt. Adams district relate coal prospecting activities about 1900 near Swampy Meadows.

Historical Information

Man's activity in the Pacific Northwest began in 1792 when Captain Grey, an American trader and explorer, discovered the Columbia River which he named. On this, its first discovery by an explorer, he claimed all the

territory which it drained as land belonging to the United States. Captain Vancouver, an English explorer, later in the same year also entered the mouth of the Columbia and dispatched a crew of men commanded by Lieutenant Broughton to navigate and explore this great river. This he did for a distance of 150 miles to the Cascade Rapids.

1824 saw the first permanent settlement in the Northwest when the Hudson's Bay Company moved from Astoria (which was headquarters since 1811) upriver and established Fort Vancouver. After the International Treaty of 1846, Fort Vancouver became an Army barracks which centered numerous activities. Chief among these was the outfitting and dispatching of Captain George McClellan, later Commander of the Union Army of the Potomac during the Civil War, for his trip across the Cascades in 1853. This expedition was authorized by Congress which instructed the War Department to search for a pass through the Cascades over which a western railroad could reach the Pacific Ocean. McClellan and his party of 66 men and 173 pack and saddle animals left Fort Vancouver July 18, 1853. They traveled north to Lewis River and east over what is now known as the Overland Trail to Red Mountain and Race Track, thence through Klickitat Pass to the east side.

Authentic records of this trip are contained in the Columbia files from which his exact route has been plotted. At more important and accessible places, this trail will be permanently marked as a historical point of interest.

Sketchy reports available at this time relate how a Scotch surveyor named Dole in 1875 located and started construction of a trail east of Vancouver. Unconfirmed reports indicate that this trail was a forerunner of a proposed railroad from Vancouver to Goldendale. Although the constructed trail reached the Cascade summit, the proposed plans were never completed. Dole valley, through which the trail passed, was named for this promoter.

Settlements of the Cowlitz and Trout Lake valleys began about 1880, followed by sparse homesteading in the Lewis River, Washougal and Wind River valleys a few years later. Early day history of such settlements and developments is, in some instances, recorded but a majority is unwritten, although still vividly pictured by local pioneer settlers and residents.

Historical information, as it relates to the Columbia National Forest, is now being collected and compiled as an official and authentic record of activities from times of beginning to the present. The above is only a sketchy picture of early history. A chronological history of the administration of the present Columbia Forest is being assembled and will tell of forest developments, administrative problems, large fires, ore prospecting and mining claims, and kindred activities.



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Do You Know? Series No. I-4

HISTORY OF THE FOREST SERVICE

The year 1891 dates the birth of the first permanently reserved public land. In that year congress passed an act giving the president authority to withdraw areas of public domain as forest reserves. President Harrison accordingly set aside forest reservations totaling 13,000,000 acres. By 1897 President Cleveland declared as reserve forests an additional 21,000,000 acres. These forest reserves were placed under the administration of the Department of Interior.

In 1905 President Roosevelt transferred the forest reserves to the jurisdiction of the Department of Agriculture and named the administrative organization the Forest Service. Later the name forest reserves was changed to national forests. The policy under which the National Forests are administered by the Department of Agriculture through the Forest Service was laid down by the Secretary of Agriculture in his letter, dated February 1, 1905, to the Chief Forester which stated in part: "In the administration of the forest reserves it must be clearly borne in mind that all land is to be devoted to its most productive use for the permanent good of the whole people." By 1907 President Theodore Roosevelt, with Forester Pinchot's assistance, had issued proclamations increasing the area of national forests to over 148,000,000 acres, all in the Western States. Today, there are 171,000,000 net acres of national forests.

The present national forest system is familiar to many people. There are 158 national forests of which 155 are in 37 states, 2 in Alaska and 1 in Porto Rico. In addition there are 80 authorized purchase units in the United States which will eventually become a part of the system of national forests when land purchases have been completed. The administrative headquarters for these national forests is the office of the Chief, Forest Service, Department of Agriculture, Washington, D. C., but direct contact of field work rests in the ten regional offices in the United States and Alaska. Portland, Oregon is the headquarters for Region 6, which includes seven national forests in Washington and thirteen in Oregon, a total net land area of 23,041,402 acres.

The fact that the nation owns these forests means that they belong to the people of the United States and are administered by the Forest Service as trustees for the public. The tradition of the Forest Service is utterly democratic, its object being the administration of the forest resources -- wood, water, forage, wildlife, recreation and many others -- under a multiple-use system which insures the greatest good to the greatest number of people in the long run. Every forest employee has a responsibility in upholding the best forestry traditions of unflinching courtesy and helpfulness.



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"The Work of the U. S. Forest Service," USDA Miscellaneous Publication No. 290, available as a reference bulletin gives a comprehensive discussion of the activities and work of the Forest Service in the administration and management of the national forests and their resources.

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Do You Know? Series No. I-6

HISTORY OF THE COLUMBIA NATIONAL FOREST

The Columbia Forest, seventh largest National Forest in Region 6, contains a gross area of 1,509,071 acres. This area was originally set aside as a reserve by President Cleveland in 1897 when he proclaimed that the unappropriated forest land between the Columbia River and the Snoqualmie Pass "shall be known as the Mt. Rainier Forest Reserve." President Theodore Roosevelt's proclamation of March 2, 1907 which established the Columbia Forest reads:

"It is hereby ordered that on July 1, 1908, the land within the boundary shown on the attached diagram heretofore set apart, reserved, and proclaimed as a part of the Rainier National Forest, shall be known as the Columbia National Forest."

The area embraced within the then declared boundaries totaled 916,215 acres. The northern boundary was the divide between the Cispus and Lewis River watersheds. Other boundaries were as they are today except for recession along the southeast corner where elimination of the Buck Creek area was made.

On October 13, 1933, the Rainier National Forest was dissolved by executive order and that portion of it which comprises the Randle and Packwood Ranger Districts was at that time added to the Columbia Forest.

By an Act of Congress, August 12, 1937, an exchange area was authorized to eventually include within the Forest an additional 90,000 acres adjacent to the western limit of the Wind River District. This is to be known as the Dole Addition.

These changes of boundaries have extended the area of the Columbia to the present 1,509,071 gross acres, divided among five Ranger Districts as follows:

	Gross	Alien	Net
Wind River	365,515	108,464	257,051
Mt. Adams	344,856	8,957	335,899
Spirit Lake	295,364	119,469	175,895
Randle	262,593	18,398	244,195
Packwood	240,743	1,146	239,597
	<u>1,509,071</u>	<u>256,434</u>	<u>1,252,637</u>

Rhode Island, the smallest state in the Union is only 83,000 acres larger than our two largest ranger districts. Delaware, the next largest state exceeds the area of the Columbia Forest by only 8,000 acres. Yet the Columbia comprises only 3.5% of the entire area of the State of Washington.



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The following publications contain invaluable information pertaining to forestry. Those preceded by an asterisk (*) are available, in limited quantities, at the Supervisor's office upon request. Others may be obtained, for short time loans, from our library.

- *1. Careers in Forestry -- USDA Misc. Pub. 249, 1938.
 2. Forest Facts and Statistics -- USFS R-6, 1936.
 3. Forest Rangers' Catechism -- USDA Misc. Pub. 109, 1931.
 - *4. Forest Trees and Forest Regions of the United States -- USDA Misc. Pub. 217, 1936.
 - *5. Forestry and Permanent Prosperity -- USDA Misc. Pub. 247, 1936.
 - *6. Great Forest Fires of America by John Guthrie, USFS.
 7. Our Forests -- USDA Misc. Pub. 162, 1933.
 8. What Forests Give -- USFS, 1938.
 9. What is Forestry -- USFS R-6, 1933.
 10. Wind River Experimental Forest, 1937.
 - *11. Work of the U. S. Forest Service -- USDA Misc. Pub. 291, 1938.
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Columbia

PACKWOOD RANGER DISTRICT

PACKWOOD, WASHINGTON

COLUMBIA NATIONAL FOREST

U. S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE

This information has been compiled
by the U. S. Forest Service from the
best available sources but cannot be
guaranteed against possible error.

INTRODUCTION

This forest was created by President Cleveland in 1896. Frank Gates was the first local forest officer. He lived on his ranch, one-half mile below the Cora bridge. There were no government owned or improved ranger stations at that time, and in those days rangers seldom went into the woods.

In 1908, Packwood (then called Sulphur Springs) had its first district ranger. The ranger's headquarters were at the Skate Creek station.

In 1910 the first forest guard was employed on the Packwood district. This guard was stationed at what was then known as the Davis Coal camp, where there was a cabin to live in and a trail by which he climbed to Carlton Ridge, where many Yakima Indians picked huckleberries and from where he could overlook Summit Creek and other nearby points.

Roads were poor and trails consisted of the few rough Indian trails or ways very crudely chopped out by prospectors or early day railroad surveying parties. Travel was slow, and although some horses were used, most people travelled on foot. There were no bridges across any of the streams, including the Cowlitz river.

FIRE PREVENTION

At the present time the Packwood district headquarters is at Packwood, Washington. It employs 12 short term protection men in addition to a telephone operator. This protection force consists of the following:

Headquarters protective assistant
Headquarters fireman
Packer, stationed at Skate Creek guard station
Recreation guard at La. Wis Wis campground
Eight lookouts stationed at:
Cispus Goat Ridge
Lost Lake Nannie Ridge
Pompey Peak South Point
Tatoosh Tumac

Additional help is secured from the Lower Cispus CCC camp which is on the Randle district.

RESORTS AND CABIN CAMPS

PACKWOOD

In the village of Packwood are 3 general stores, 3 service stations and garages; restaurant; hotel; pack and saddle horses for rent, with guide service if desired; postoffice; church; school; camper supplies; fishing tackle; and cabins by the day or week.

PACKWOOD LAKE

Mr. R. A. Neeley operates a cabin camp at Packwood Lake, 6 miles by trail from Packwood. Rates - Cabins \$1.50 to \$2.50 per day according to number in party. Rates by the week: meals 75¢; boats, 25¢ per hour; \$1.00 per day; horses, 75¢ per hour, \$2.00 per day; also fishing tackle for rent and some campers supplies and confectionery for sale.

There is a free public camp at Packwood Lake for all who do not care to stay at the Pay-camp.

Cabins can be rented in the town of Packwood.

Pack and saddle horses can be hired at the town of Packwood as follows: 75¢ per hour, \$2.00 per day. Guide service, \$5.00 per day.

COAL CREEK

A cabin camp is operated at Coal Creek on the highway 4 miles above Packwood. Rates: meals in coffee shop, 15¢ and up. Saddle horses by previous arrangement \$2.00 per day. Cabins \$1.50 to \$2.00 per day.

OHANAPECOSH HOT SPRINGS

Accommodations can be secured at Ohanapecosh Hot Springs in the Rainier National Park as follows: (Park Ranger at this point)

Rates - Cabins, \$2 to \$3.50 per day; \$10 to \$14 per week
Tents , \$1.25 - \$1.50 per day; \$5 to \$7 per week
Meals , 15¢ - \$1.00

Room and Board - \$3.50 per day; \$17.50 per week

Mineral Baths - 35¢ - 75¢
35¢ without towels or blankets
Masseur available if wanted

Saddle horses by appointment.

Campers and fishing supplies and confectionery.

Season from May 20 -- November 15.

Cats and dogs are not allowed in the Park.

FREE FOREST SERVICE CAMPGROUNDS

Campfire permits are required for all camps except La-Wis-Wis.

La-Wis-Wis campground at Clear Fork; $\frac{1}{2}$ mile off the highway; community kitchen, picnic and family tables, camp stoves, parking areas, running water, children's playground. No restrictions on pets on national forest campgrounds.

Other improved campgrounds at: Coal Creek, Summit Creek, Soda Springs, Johnson Creek, Old Clear Fork, Chambers Lake, Packwood Lake, Twin Sisters Lakes.

A summer home area has been laid out at Cedar Brook where lots can be leased from the Forest Service at \$15.00 per year per lot.

Approximately 67 per cent of all fires are caused by camp fires and smokers. No smoking while walking along trails or riding on roads except two-way surfaced highways.

The Cowlitz Pass section is within a roadless area where no roads will be built and where recreationists can camp, ride, or hike at will without interference from automobiles.

The Forest Service plans preclude the cutting of timber along the Randle-Yakima highway.

Wild
GOAT ROCKS PRIMITIVE AREA

DESCRIPTION

The area lies on both sides of the Cascade Summit in the Snoqualmie and Columbia national forests. The Cascade divide is the inter-forest boundary line.

The area is approximately 16 miles north and south and $9\frac{1}{2}$ miles east and west. It contains 72,440 acres of which 9,700 acres are barren lands, 7,700 acres grass lands, 17,270 acres contain subalpine timber and 37,770 acres contain a stand of fair timber.

The entire acreage is in public ownership. No state or private lands are involved. It is administered by the Forest Service.

This area includes all the high peaks with their surrounding open slopes and benches known as the Goat Rocks.

PEAKS

The highest peak, known as the "Goat Rock", is 8,201 feet in elevation and is situated on the divide between the Tieton and Klickitat rivers. Other high peaks are: Hawkeye, Ives Peak, Johnson Rock, Old Snowy, and Tieton Peak. All are between 7,000 and 8,000 feet in elevation.

LOOKOUTS

There are four lookouts on this area:

Bear Creek Mountain	Snoqualmie Forest
Goat Ridge	Columbia Forest
Lost Lake	do
Nannie Ridge	do

The old Hawkeye lookout was abandoned in 1933 because the fog too frequently enveloped this peak, which impaired visibility. Goat Ridge lookout was constructed to take its place.

GLACIERS

There are five pronounced glaciers within this area. Mead Glacier and Conrad Glacier at the head of the South Fork Tieton and the Packwood Glacier are spectacular and interesting.

STREAMS

The principal streams that head in the Goat Rocks are: Cispus river, Clear Fork of the Corlitz, Glacier Creek, Goat Creek, Middle Fork, the North and South Forks of the Tieton, Nannie Creek and Walupt Creek.

These streams all head at glaciers or in beautiful timberless canyons, surrounded by towering rock cliffs, stacks of flint-like slide rocks and slopes covered with heather and mountain grasses.

LAKES

Two large lakes lie adjacent to the boundary. Packwood Lake, $1\frac{1}{2}$ miles long, where fishing and camping is good, lies within 10 miles by trail from Packwood Glacier and 4 miles from Lost Lake lookout where the scenery is beautiful. Walupt Lake, partly within the primitive area, is somewhat smaller. It lies within a high hazard area closed to entry during the fire season.

Chambers Lake, smaller in size but popular for its fish and camping possibilities, lies at the end of the Cispus road and within easy hiking distance from Hawkeye Peak and Snowgrass Flats.

There are some smaller lakes in the area. The more important ones are:

Lost Lake, Shoe Lake, Heart Lake and Goat Lake.

Goat Lake, which lies at the head of Goat Creek at an elevation of 6700 feet, has perpetual ice.

TIMBER

The area contains about 150,000,000 feet B. M. of timber, of which about 40,000,000 are Douglas fir, 30,000,000 western hemlock, the remaining 80,000,000 feet being comprised of other trees common to the northwest. All species of alpine timber grow on the higher elevations, usually in dwarf-like shrubs.

A stand of the finest Alaska cedar can be found on the slopes between Lost Lake lookout and Clear Fork. These trees range from 4' to 5' in diameter.

FISH AND GAME

Eastern brook and rainbow trout are abundant in Upper Clear Fork.

Lost Lake and Shoe Lake have been stocked and have an abundance of fish.

A band of about 100 mountain goats range here and many of them can be seen most any day feeding among the cliffs and towering peaks.

Deer and bear are abundant.

Elk which were planted in the Upper Naches valley many years ago have widened their summer range and many of them now roam this area.

Many furbearing animals such as martin, mink, fox and others, still exist in the timbered areas.

Birds of all kinds known to the mountains of the northwest may be found here.

FLOWERS

Every kind of wild flower known to these elevations in the northwest grows in abundance.

CAMPING

Snowgrass Flats is a popular camping spot for organized groups of mountain climbers. From this camp most all of the important peaks can be reached within a few hours hike. A shelter cabin has been constructed here for those who care to use it.

Equally good camping can be had most anywhere in the open or semi-open areas.

Horse feed is abundant throughout the entire area not covered by timber.

SCENERY

It has been said this is one of the most scenic spots south of the Canadian boundary. Many of the higher snow-capped mountains can be seen, including Mt. Rainier, Mt. Adams, Mt. St. Helens, Mt. Hood, and Mt. Stewart. From Snowgrass Flats one has an excellent view of Mt. Adams and the upper portions of the Cispus river. From the divide between Goat Creek and Packwood Lake Creek the view is equally good to Mt. Adams and Mt. Rainier.

This area is unsurpassed for cameramen.

From the Cispus pass one has excellent vision to the east, west and south.

ROADS AND TRAILS

There are no roads into this area and none are to be constructed.

The nearest point that can be reached by car is the Berry Patch cabin, 40 miles by road from Randle.

The area is accessible by trail from every side or angle. Good trails extend into the area from the Cispus road at Berry Patch cabin via Goat Ridge or Snowgrass Flats, from Walupt Lake, (closed to entry during fire season), from Midway, Lost Lake trail and Lily Basin trail from Packwood, Purcell Creek trail, Clear Fork trail, Summit trail from Leach Lake.

East side trails extend into the area from Pinegrass Ridge, Round Mountain, Conrad Meadows, North Fork of Tieton and others.

The Pacific Crest trail system traverses the area along the Cascade Summit from the north to the south. A primary trail has been constructed on this location from the Cispus pass to Packwood glacier.

Two bands of sheep graze on this area. One on the Columbia forest, Lost Lake section and one on the Snoqualmie forest, Hogback section.

SPECIAL

Many commercial pictures have been taken in this area.

Scientists make collections of flowers and plants here. Scientific studies are carried out here on bird and animal life.

Pleasure seekers should not enter the high portions of this area earlier than July 1.

Fall storms should be avoided.

FISH AND GAME

There are three state fish hatcheries on the Packwood district. They are at Clear Fork, Packwood Lake, and Walupt Lake. At Clear Fork, salmon spawn is taken, the eggs are hatched, and the small salmon returned to the stream. This is to keep up the food fish supply for commercial purposes. At Packwood Lake and Walupt Lake, rainbow trout spawn is taken. This spawn is kept in the hatchery troughs until the eggs are eyed-out and ready to move. They are then shipped to waters in other parts of the state.

The 1937 game census estimate shows that the Packwood district has:

- 100 mountain goats
- 1000 deer, black tail
- 150 bears
- 20 cougars
- 80 lynx or wildcats
- 200 coyotes
- 100 beavers
- 100 elks

Mountain goats are confined principally to the Goat Rocks area, although occasionally they stray out of the Mt. Rainier National Park on the Tatoosh range.

Bear are both black and brown in color although of the same species.

The elk are rapidly increasing. They were planted on the Naches watershed about thirty years ago, but soon widened their range to include the Cowlitz pass and now range along the Summit, including the headwaters of Clear Fork, Goat Rocks and Walupt Lake area.

Coyotes were not known in this locality prior to 1898. It is claimed they followed the sheep to the summit from the east side and eventually drifted down on the west side of the Cascades. On the west side their environment and living conditions were so different that they have become more vicious and somewhat different in appearance, and they are often classed as a wolf by hunters and trappers. A very few wolves are still in existence.

Fur bearing animals have been materially reduced by years of trapping but many of them such as fox, marten, mink, weasel, otter and skunk still exist.

FISHING INFORMATION

Stocking records are incomplete and they are given as a guide only. Fishing conditions changeable.

<u>Name of Creek</u>	<u>Planted or Natural Stocking</u>	<u>Kind of Fish</u>	<u>Remarks</u>
Coal Creek	Natural stocking	Steelhead, Rainbow	
Clear Fork	do Below Canyon	C.th., R.b.	Upper section stocked with Rainbow and Montana black spot
Hager Creek	Natural stocking	Rainbow	
Johnson Creek	do	do	Closed during fire season due to extremely high
Kilborne Creek	do	Cutthroat	fire hazard. Fish only below falls, short stream.
Lake Creek below lake	do	R.b., C.th., S.h.	
Ohanapecosh	do	R.B., C.th.	
Skate Creek	do	R.b., Cth., S.h.	
Smith Creek	do	Cutthroat	Closed during the fire season
Butter Creek	Planted	Rainbow	Planted above falls near mouth of canyon.

<u>Name of Creek</u>	<u>Planted or Natural Stocking</u>	<u>Kind of Fish</u>	<u>Remarks</u>
Cortright Creek	Planted	Cutthroat	
Carlton Creek	do	R.b., C.th.	
Davis Creek	do	Rainbow	Natural stocking at highway.
Big Lava Creek	do	do	
Milridge Creek	do	do Mont. black spot	
Summit Creek	do	C.th., R.b.	
Willame Creek	do		Planted above falls below Willame trail.
 <u>Name of Lake</u>			
Packwood Lake	Natural stocking	Rainbow	
Backbone Lake	Planted	Eastern brook	
Bluff Lake	do	do	
Chambers Lake	do	do	
Cramer Lake	do		On Snoqualmie Forest
Dumbell Lake	do	do Cutthroat	
Deer Lake	do		On Snoqualmie Forest
Elkhorn Lakes	do		do
Glacier Lake	do	Eastern brook	Closed to entry during fire season beginning July 1.
Hager Lake	do	do	
Henry Lake	do	do	
Jess Lake	do	do	
Knuppenberg Lake	do	Cutthroat	

<u>Name of Lake</u>	<u>Planted or Natural Stocking</u>	<u>Kind of Fish</u>	<u>Remarks</u>
Lily Lake	Planted	Rainbow	
Snow Lake	do	Eastern brook	
Twin Sister Lakes	do	do	On Snoqualmie Forest
Walupt Lake	do	Rainbow	This lake is permanently closed. It is used by the State for propagating fish only.

Hunting and fishing is permissible on the national forest in season with license. See Washington State Fish and Game Laws and regulations for open seasons and bag limits.

A few beaver were planted in Packwood Lake in 1928 by the U. S. Biological Survey. This colony now is quite large.

GENERAL INFORMATION

Area of Packwood ranger district.

Gross area	240,743 acres
Alienated area	1,146 acres
Net national forest area	<u>239,597 acres</u>

There are no huckleberry fields in this district that are accessible by road. Good berry fields can be reached by trail at Carlton Ridge 3 miles from Summit Creek road; Tatoosh Mountain 8 miles from County road; Skate Mountain 5 miles from County road; Davis Mountain 3 miles from Cora bridge.

There are five sheep allotments and three cattle and one horse range on the district, under permits:

Sheep allotments are:

Cowlitz Pass sheep allotment	1200 head
Lost Lake allotment.....	1300 do
Horseshoe allotment.....	1200 do
Midway allotment	1200 do
Pompey Peak allotment.....	1200 do
Tatoosh cattle range	100 do
Dixon Mountain cattle range	15 do
Davis Mountain cattle range.....	40 do
Skate Mountain horse range	20 do

Stock under six months of age, which is the natural increase of the permitted stock, is not counted but is allowed to graze free of charge.

The principal forest trees in the lower valleys are:

Douglas fir	(Pseudotsuga taxifolia)	Bigleaf maple	(Acer macrophyllum)
Western hemlock	(Tsuga heterophylla)	Northern black cottonwood	(Populus trichocarpa hastata)
Western red cedar	(Thuja plicata)	Red alder	(Alnus rubra)
Lowland white fir	(Abies grandis)	Willow	(Salix Sp.)
Pacific yew	(Taxus brevifolia)	Pacific dogwood	(Cornus nuttallii)

Important and frequently visited lakes are:

Backbone	Henry
Chambers	Joss
Dumbell	Jug
Dear Lake	(Snoqualmie Forest)
Elkhorn Lake	(Snoqualmie Forest)
Fish Lake	(Snoqualmie Forest)
Fryingpan	Knuppenberg
Lily	Packwood
Lost	Twin Sister Lakes (Snoqualmie Forest)

Good fishing can be had in season in all these lakes except Fryingpan Lake, where fish did not thrive.

Packwood Lake, $1\frac{1}{2}$ miles long, is the largest lake on the district.

Walupt Lake is second in size, but since it is included in the forest closure where the general public is excluded due to the very high fire hazard, it is not mentioned in the list above.

Elevation of important peaks on and near the Packwood district:

Anvil Rock L. O.	9584	Mt. Rainier National Park
Bearhead Mountain L. O.	6080	Snoqualmie National Forest
Cispus L. O.	5163	
Darling Mountain	6772	A State of Wash. fire lookout
Goat Ridge L. O.	6200	
Hamilton Butte L. O.	5756	Randle district
Hawkeye	7400	
High Rock L. O.	5687	Snoqualmie National Forest
Jennie Butte L. O.	6400	Yakima Indian Reservation
Lakeview Mountain	6661	
Lost Lake L. O.	6307	
Midway L. O.	5250	
Mt. Aix	7805	Snoqualmie National Forest
Mt. Adams	12307	
Mt. St. Helens	9671	
Mt. Rainier	14408	

Nannic Ridge L. O.	6124	
Pinnacle Peak	6562	Rainier National Park
Pompey Peak L. O.	5172	
South Point L. O.	5985	
Sunrise Peak L. O.	5880	Randle district
Tatoosh L. O.	6307	
Tumac L. O.	6300	
Trails End L. O.	5450	Randle district

IMPROVEMENTS

The Packwood district has 116 miles of telephone lines. Lines extend to all lookouts and guard stations. Connections with the Rainier National Park line are made at Longmire and Ohanapocosh and with other forest districts at Tieton, Randle and Trout Lake. Commercial line connections at Randle and national through the National Park lines at Longmire.

There are 413 miles of trails forming a network of ways to reach most every part of the district with its hub at Packwood. There are 26 miles of forest roads on the district including Johnson Creek road 5 miles to Glacier Creek; Summit Creek road 5 miles to Soda Springs; 12 miles of the Upper Cispus road to Walupt and Chambers Lakes, and other shorter stretches to campgrounds, summer home tracts and to Skate Creek guard station.

The Packwood suspension bridge was built by the forest service in cooperation with Lewis County at a cost of approximately \$30,000. The cost was about 1/3 county and 2/3 forest service.

F
Control
Campgrounds
Columbia

July 1, 1938

IMPROVED FOREST CAMPS OF THE COLUMBIA NATIONAL FOREST: WASHINGTON

Camp fire permits are NOT REQUIRED at the following Forest Camps:

<u>Packwood Ranger District</u> La-Wis-Wis (Clear Fork)	<u>Mt. Adams Ranger District</u> Morrison Creek Timberline Shelter Cold Spring Willard
<u>Randle Ranger District</u> North Fork Silver Creek	<u>Wind River Ranger District</u> Government Mineral Springs Sunset Falls Little Soda Springs Tyee Springs
<u>Spirit Lake Ranger District</u> Spirit Lake	

Camp fire permits ARE REQUIRED at the following Forest Camps:

<u>Packwood Ranger District</u> Berry Patch Cabin Chambers Lake Coal Creek Johnson Creek Soda Springs Summit Creek	<u>Mt. Adams Ranger District</u> Bench Lake Bird Creek Meadows Bird Lake Cold Springs Indian Camp Cultus Creek Goose Lake Ice Caves Little Goose Lost Creek Meadow Creek Indian Camp Mirror Lake	<u>Moss Creek</u> Oklahoma Peterson Frairie Saddle Smoky Creek So. Surprise Lakes Indian Cp. So. Twin Buttes Surprise Lakes Indian Camp Tillicum Twin Falls
<u>Randle Ranger District</u> Council Lake Horseshoe Lake Killen Creek Midway Spring Creek Takh lakh Pond	<u>Wind River Ranger District</u> Race Track	
<u>Spirit Lake Ranger District</u> Cedar Creek Donny Brook Timberline (Mt. St. Helens)		

In addition to the above Forest Camps, camp fire permits
WILL BE REQUIRED AT ALL FOREST CAMPS ACCESSIBLE BY TRAIL