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November 1994



An Extensive Reconnaissance of the Wenaha National Forest in 1913

George A. Bright

Edited by David C. Powell

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ECOSYSTEM MANAGEMENT

Learning From The Past To Understand The Present

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USDA Forest Service
Pacific Northwest Region
Umatilla National Forest
Technical Publication F14-SO-08-94
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Acknowledgments

Many Umatilla National Forest employees helped produce this publication. Linda Dillavou (Supervisor's Office) typed the text after we discovered that the quality of the original copy was too poor to scan electronically. Joani Bosworth, Linda Dillavou, and Noanie Graham (Supervisor's Office) helped with publishing arrangements. Tim Singleton (Supervisor's Office) provided advice about producing and publishing this document. Jim Tardif (Pomeroy Ranger District) supplied information about Irving Smith, District Ranger at Pomeroy from 1962 to 1968. Keith Walbridge and Mike Hines (Supervisor's Office) scanned the map showing photograph locations.

Authors

GEORGE A. BRIGHT was a Forest Assistant when he completed a reconnaissance of the Wenaha National Forest in 1913. At the time of the reconnaissance, it is likely that Bright was attached to the Wenaha Supervisor's Office in Walla Walla, Washington. Although detailed information about Bright's professional history was not available, it is known that he was a Forest Assistant on the Umatilla National Forest from 1910 (perhaps earlier?) to early in 1913. While stationed on the Umatilla National Forest, Bright studied factors affecting western yellow pine regeneration (Bright 1911) and the relative merits of western larch and Douglas-fir in the Blue Mountains (Bright 1913).

DAVID C. POWELL, editor, is Forest Silviculturist for the Umatilla National Forest, 2517 SW Hailey Avenue, Pendleton, Oregon 97801.

Cover Photograph

An excellent stand of yellow (ponderosa) pine in a draw tributary to the Tucannon River, possibly located in School Canyon. The photograph was probably taken by Forest Service photographer M. N. Unser during the summer of 1913.

Abstract

Bright, G. A. 1994. An extensive reconnaissance of the Wenaha National Forest in 1913. Powell, David C., editor. Technical Publication F14-SO-08-94. Pendleton, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Region, Umatilla National Forest. 56 p.

This document recreates an historically valuable report prepared by George A. Bright in 1914. It describes an extensive reconnaissance of the Wenaha National Forest that Bright completed in 1913. In addition to narratives about the natural resources, existing uses, and management opportunities of the Forest, the report includes 42 black-and-white photographs. Additional historical photographs of the Wenaha National Forest were included by the editor in an appendix. The original report is reproduced in its entirety, with occasional comments added by the editor.

Keywords: Historical document, forest history, range management, forest management, wildlife management, fire effects, western white pine, Blue Mountains, Wenaha NF, Umatilla NF.

THE WENAHA RECONNAISSANCE REPORT

The eastside screens required that project areas be evaluated using an historical range of variation (HRV) In response to that need, we began to make more and more use of historical reports, old journals and maps, and similar documents.

While looking for that type of material, I came across an old report here in our historical files in Pendleton It not only provided interesting information about the northern half of the Forest in early settlement days, but it also contained many good black-and-white photographs. As I showed that report to Jim Tardif and other long timers on the Forest, I was surprised at how many of them had never seen it before

So, we attempted to make copies of the report so that more folks could benefit from it. As I worked with Tim Singleton over a period of several months, it became clear that we were not going to be able to generate good, usable copies (especially of the photos) from our xerox machine And, since the photographs are such an important part of this particular report, I finally decided to use some fire-related budget savings and get the report printed by the government printing office (this publication was paid for using FY94 funds, not funds from this year)

Linda Dillavou typed the text (it was too old to scan electronically), and I scanned the photographs and laid the document out using Pagemaker. I also decided to include some additional historical photos from the S.O archives as long as I was going to the expense and trouble to get it printed.

Here is a copy of that report. I hope you enjoy it as much as I have. Please contact me if you'd like additional copies

Dave

David C. Powell

OUR MISSION IS TO CARE FOR THE LAND, AND TO SERVE PEOPLE

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EDITOR'S INTRODUCTION

Those who cannot remember the past are condemned to repeat it.
George Santayana, American philosopher and poet

This document recreates an historically valuable report prepared by George A. Bright (Bright 1914). It describes an extensive reconnaissance of the Wenaha National Forest that Bright completed in 1913. In addition to narratives about the Forest's natural resources, existing uses, and management opportunities, the report includes 42 black-and-white photographs. The common sentiment that "a picture is worth a thousand words" is supported by many of the photographs in Bright's report.

Bright's original report is reproduced here in its entirety, including the photographs. The editor made every effort to duplicate the original report in all respects, with the following exceptions: 1) the original report was double spaced, and this version is single spaced, 2) the original photographs were included on pages by themselves, whereas this version has text and photographs comingled on the same page, 3) the original map showing photograph locations measured 16" x 18" but was reduced to fit on an 8½" x 11" page for this publication. Those changes were made to save paper and to reduce printing costs, none of them are considered to have affected the report's readability in any way.

Bright's report provides valuable information without requiring additional elaboration, however, the editor has provided occasional comments when appropriate. In many instances, the editor's comments simply restate notes that were apparently made on the original report by Pomeroy District Ranger Irving Smith in 1965. Notes by the editor are contained in brackets [like these].

One of the strongest features of Bright's report is the photography. To build on that strength, the editor included 8 additional photographs of the Wenaha National Forest in an appendix. They were obtained from the Umatilla National Forest historical archives in Pendleton, Oregon. The additional photographs were selected from the same general era as Bright's report and, in one instance (figure 7), the image was recorded by the same photographer (M. N. Unser) and in the same year (1913) as the reconnaissance photographs. It is likely that figure 7 was taken for the reconnaissance but, for some reason, Bright chose not to include it in the final report.

The Historical Range of Variation

Why is historical information important? Land managers are beginning to apply a new philosophy called ecosystem management. One aspect of ecosystem management emphasizes looking back in time as a way to put current and desired (future) conditions in an appropriate temporal context. An example of that concept is the *historical range of variation* (HRV), where managers estimate the range of "natural" (historical) conditions that existed in an area prior to Euro-American settlement.

The historical range of variation provides a framework for comparing historical, current, and future conditions (Morgan and others 1994) Managers often consider HRV to be an indicator of ecological sustainability—historical conditions are believed to represent sustainable conditions, at least to the extent that Mother Nature emphasized sustainability After identifying an HRV for a particular variable (stand structure, forest composition, cobble embeddedness, pool to riffle ratios, etc), managers can then infer which ecological processes may have been important for creating and sustaining those conditions Without an historical benchmark, it can be difficult to interpret the ecological “roadmap” that resulted in the conditions present today

Application of HRV and related ecosystem management concepts has resulted in a greater reliance on historical reports, pioneer-era journals, early maps and photographs, and similar documents This reconnaissance report for the Wenaha National Forest is but one example of useful historical documents Several other early reports that pertain to the Wenaha also provide valuable information (Allen 1906, Darlington 1915, Foster 1906, Kent 1904, Schmitz 1906)

The Wenaha National Forest

The Wenaha National Forest was located at the northern tip of the Blue Mountains in northeastern Oregon and southeastern Washington, extending from north of La Grande, Oregon to south of Pomeroy, Washington It was created in May of 1905 using lands withdrawn from homestead entry in 1902 and 1903 The Forest was known as the Wenaha Forest Reserve between 1905 and 1907 The Supervisor’s Office was located in Walla Walla, Washington Originally, the 790,000-acre Forest had 8 Ranger Districts—4 in Oregon (La Grande, Weston, Tollgate, and Troy), and 4 in Washington (Walla Walla, Tucannon, Peola, and Cloverland) The Wenaha National Forest was eventually combined with the Umatilla National Forest to the south in November of 1920 (Tucker 1940) The current Umatilla National Forest Ranger Districts of Pomeroy and Walla Walla were originally contained in the Wenaha National Forest

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WENAHHA – RECONNAISSANCE

EXTENSIVE

R E P O R T

G A Bright

S
Wenaha – Reconnaissance,
Extensive

March 20, 1914

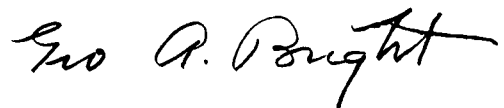
THE

EXTENSIVE RECONNAISSANCE REPORT

OF THE

WENAHA NATIONAL FOREST

The reconnaissance was carried on from May 4, 1913, to September 29, 1913, during which period, with the interruption of only a day or two now and then, the field work was mostly accomplished. The office work was begun January 20, 1914, and was completed April 13, 1914, with little interruption. Altogether 146 days was required for the field work and 91 days for the office work, or a total of 237 days, including Sundays and holidays.



Forest Assistant

S
Wenaha – Reconnaissance,
Extensive

THE
EXTENSIVE RECONNAISSANCE REPORT
OF THE
WENAHU NATIONAL FOREST

The extensive reconnaissance on the Wenaha National Forest, begun in May 1913, was completed in the fall of the same year. The outline of April 20, 1911, and letter of May 29, 1913, were substantially followed in the field and office work. A minor modification to these instructions was, however, thought best in the use of a different colored crayon to distinguish between the South and North slope types instead of using the same color, solid and cross-hatched, to describe each of these types respectively. The typical North slope type extends to a much higher altitude in the mountains than the South slope type without in the least changing its character. In these comparatively high altitudes it often occurs on slopes having a south as well as north exposure. For this reason a separate color was thought best. At a slightly greater altitude occurs the Transition type, which is quite distinct in composition from the North slope type.

The Atlas Folio sheets for the Wenaha National Forest were found to be very inaccurate and out of date, and it was accordingly deemed best to draw an entirely new map from the most reliable existing sources and from considerable data which it was possible to gather while carrying on the regular reconnaissance work. Roughly, a third of the Forest has never been surveyed by the Land Office, and the data on topography and stream flow was here apt to be particularly unreliable and meager. As timber in this region is dependent very greatly upon topography relative to both its quantity and quality, it is desirable to have as accurate a map as possible.

The large-sized group of photographs in this report were taken by Mr. Unser of the Forest Service and are of general interest, showing largely the various improvements of springs, telephone lines, trails, and ranger stations, but also incidentally illustrating very well the matter with which this report is mostly concerned, i.e., the forage, timber, and water resources of the Forest, and their possibilities of development. The smaller set of photographs was taken by me for this report while engaged on the reconnaissance of the Forest. [See figure 1 for Key to Photographs.]

Topography

The Wenaha National Forest lies along the top of a spur of the Blue Mountains, running in a northeasterly and southwesterly direction. The elevation varies between 2,000 and 6,500 feet above sea level with an average elevation of about 4,500 feet. High ridges and not true mountains are the characteristic features of the topography, the ridges all rising to about a uniform altitude above the creeks flowing between them.

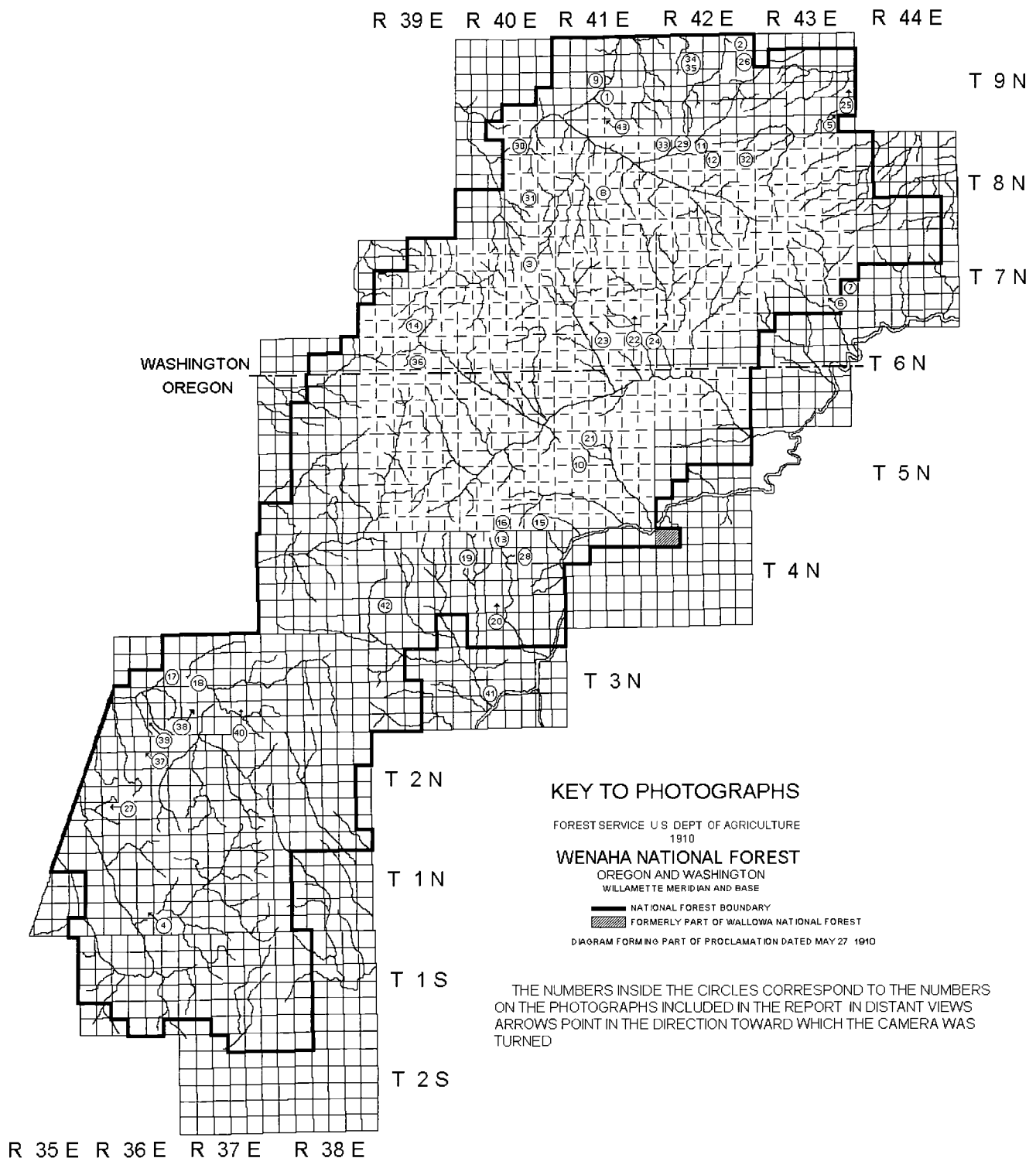


Figure 1—Key to Photographs [Editor's Note Since this map had to be reduced from the original size, it was edited slightly to improve its readability The map shows a location for photograph 20, but no such photograph was included in the report]



TUCAÑO RANGER STATION. [Editor's Note: According to the *History of the Northern Blue Mountains* (Tucker 1940), this ranger station cabin was built in the fall of 1907.]

Although there are no mountains on the Wenaha, strictly speaking, the whole Forest is exceedingly rough. The ridges are from 1,000 to 2,000 feet high, and are the result of erosion and not of immediate volcanic action. In past ages the shrinkage of the earth's crust gradually forced the strata to be pushed up evenly without very much breaking up. In future ages the streams wore ever increasingly deep canyons and then cross-canyons, until the whole country was cut up into a succession of razor-back and saw-tooth ridges and deep and narrow canyons, that are at best exceedingly difficult and often quite impossible to travel over on horse back except as they are made accessible by trails. The distance from the tops of the ridges to the creeks is often covered by alternating cliffs or "breaks," as they are locally known, and slides of loose soil and angular volcanic rock. An utter absence of lakes is characteristic of this type of topography where violent volcanic action has never taken place to block the channels of streams or throw barriers across valleys.



IRON SPRINGS RANGER STATION. [Editor's Note: According to the *History of the Northern Blue Mountains* (Tucker 1940), this ranger station cabin was built in 1908 by Al Jeffries and J.T. McCarty while working under the supervision of Ranger William Kendall.]

The northern half of the Forest is rougher than the southern part, but in general the whole region is rough in the extreme and offers obstacles in the way of accessibility that would be hard to equal in a country having a far greater range in altitude. Around the boundary of the Forest where the elevation is not so great as in the interior, and erosion consequently less violent, the ridges change from the razor-back type and become broad flat expanses cut only occasionally by ravines. Later these ridges gradually splay out into the plains and the ravines continue to dwindle till nothing is left of them. On the whole the Wenaha is uninteresting from a scenic point of view because of the absence of any high, towering peaks.

The boundary of the Wenaha Forest, as it is now drawn, includes land wholly within the timber belt, none of it being too high or too low for the full development of more than one commercially valuable species of timber. On the higher altitudes these species are primarily lodgepole, fir, and spruce, and in the lower altitudes, yellow pine and Douglas fir. There is no alpine type. Some parts of the Forest lying along the creek bottoms are suitable for agriculture, both as regards climate and soil. These creek bottoms are already mostly homesteaded, although

it is doubtful if the time and desperately hard labor spent by the men who first obtain patent to them is ever warranted by the small and uncertain crops which it is finally possible to produce. In fact by the time that it is possible to raise anything the homesteader has in most cases become discouraged and is willing to sell out. A typical deserted homestead is that of the Caraway place, a photograph of which is included. The agricultural possibilities of this place are much better than are the possibilities on other places now being applied for on the Wenaha. The family who obtained patent to this homestead is now living in North Carolina, and has not even interest enough in it to pay the taxes. Five hundred dollars are asked for the place although the value of improvements would alone exceed this amount two or three times. Probably the reason why so many homesteads are applied for when much better places are allowed to revert to the state for taxes, is the hope of the applicant that he may be able to get something for nothing. As the class of applicants who at the present time apply most frequently for lands within Forests are apt to be somewhat shiftless, this prospect of course appeals very strongly to them.

Plate III [3]



GODMAN SPRINGS RANGER STATION.

Plate IV [4]



LOOKING DOWN MEACHAM CREEK.

Plate V [5]



LOOKING DOWN ASOTIN CREEK.

THESE TWO PHOTOGRAPHS ILLUSTRATE THE DIFFERENCE BETWEEN THE CREEK CANYONS IN THE NORTHERN AND SOUTHERN PARTS OF THE FOREST. THOSE IN THE NORTHERN PART, AS IN THE CASE OF ASOTIN CREEK, BEING MUCH STEEPER AND ROUGHER THAN IN THE SOUTHERN PART, WHERE MEACHAM CREEK IS A TYPICAL EXAMPLE.

Plate VI [6]



LOOKING TOWARD SADDLE BUTTE, ONE OF THE HIGHEST POINTS ON THE WENAHA, SHOWING THE SUMMIT CROWNED WITH TIMBER. NO PART OF THE WENAHA IS ABOVE TIMBER LINE, OR TOO HIGH FOR THE FULL DEVELOPMENT OF TWO OR THREE COMMERCIALLY VALUABLE SPECIES. NEITHER IS ANY PART OF IT TOO LOW FOR THE GROWTH OF COMMERCIAL PINE AND FIR.

Very often, too, bona fide home-seekers have been misled concerning the character of land in National Forests. They know that most of the best land in the public domain is gone, but are made to believe that lots of first class agricultural land is still bottled up in the National Forests. Their minds become so thoroughly imbued with this idea that they are unable to give unbiased thought to the conditions as they actually exist, with the result that they are led to apply for land on the National Forests that they would not look at twice were it on the public domain. A way in which it might be possible to settle up a country where all other methods for booming it had proven unsuccessful might be to threaten its inclosure within a National Forest. It is possible that settlers would then immediately flock to it in great numbers. Outside of two small areas examined last summer for possible elimination from the Wenaha, but which are at best only on the verge of possible agricultural development, it is extremely doubtful if there is any other area where consistent crops could be grown.

Climate

The climate on the Wenaha is typical of that found throughout the Blue Mountains. The precipitation, most of which falls in winter in the form of snow, is greater than on the Umatilla

Forest and less than on the Wallowa. On the first of last July there were still deep snow banks left on the Wenaha where the snow had drifted all through the winter, but where there were snow banks on the Wenaha there were snow fields on the Wallowa. In the winter of 1912–13 the snow varied from a depth of 3 feet on the lowest elevations to 15 feet on the highest elevations. There is never any snow lasting through the summer, the last disappearing about the middle of July or a little later.

Topography and climate combine to make the Wenaha typically a timber and forage producing Forest, possessing a minimum amount of land adaptable to agriculture. It is noticeably a homogeneous forest, lying entirely within the timber belt and offering much the same conditions and problems in one locality as in any other. For this reason a general description of the whole Forest is thought to be sufficient and a minute description of each district or block tedious and unnecessary.

Plate VII [7]



THE CARAWAY PLACE, HOMESTEADED AND LATER ABANDONED. THE 160 ACRES COMPRISED IN THIS PLACE CAN BE BOUGHT FOR FIVE HUNDRED DOLLARS ON EASY TERMS. IT FINDS NO PURCHASER, ALTHOUGH WORSE PLACES ARE CONTINUALLY BEING APPLIED FOR ON THE NATIONAL FOREST UNDER THE ACT OF JUNE 11, 1906.

[Editor's Note: Someone (possibly Irving Smith, Pomeroy District Ranger in 1962–1968) wrote on the original copy of the report that this photograph may have been taken in the Mountain View area.]



SNOW BANKS LYING IN THE OPEN, JUNE 10, 1913, IN ONE OF THE HIGHER PORTIONS OF THE WENAHA. LATE LYING SNOW BANKS ARE A GREAT EQUALIZER OF STREAM FLOW. BENEATH THE SHELTER OF TREES SNOW COVERED THE GROUND LAST YEAR TILL WELL THROUGH THE MONTH OF JULY.

[Editor's Note: Someone (possibly Irving Smith, Pomeroy District Ranger in 1962–1968) wrote on the original copy of the report that this photograph may have been taken “near Dunlap Cabin.”]

Forest Types

Three types of forest are distinguished on the map. They are as follows:–

1. South slope type,
2. North slope type,
3. Transition type.

It is usually not difficult to determine into which of these types a particular body of timber should be classed, as there is little intermixture and the types are in most instances sharply defined. The North and South slope types are determined primarily by the degree of soil moisture, which in turn depends upon the direction of the slope. The slopes facing the south, being exposed to the direct rays of the sun, dry out quickly while those slopes exposed to the north receive the rays of the sun obliquely and remain moist for a longer period.

As regards species the South slope type is characterized by a high percentage of yellow pine forming from 40 to 100 percent of the total stand. Other species occurring in this type as secondary species are grand fir, Douglas fir, and larch.

The North slope is distinguished by the complete absence or only small percentage of yellow pine in the stand, the greater part being composed of various mixtures of Douglas fir, grand fir, and larch. On most of the north slopes yellow pine would be well adapted but, being a

very intolerant tree, it cannot compete with the more tolerant species occurring on these slopes. This type is never found purely of one species as in the case of the South slopes. Occasionally the stands are valuable but usually they are understocked, containing only a fifth or a tenth of their possible stand. Under management they might be made to yield an amount of timber greater than is found on the South slopes and typical yellow pine types, from which practically all the timber cut in the Blue Mountains is at the present time obtained. Unfortunately, however, the North slopes are so generally decadent that it will be many years before there will be any inducement for private capital to log them and thereby make possible some scheme of management which will insure future stands of greater productivity.

Plate IX [9]

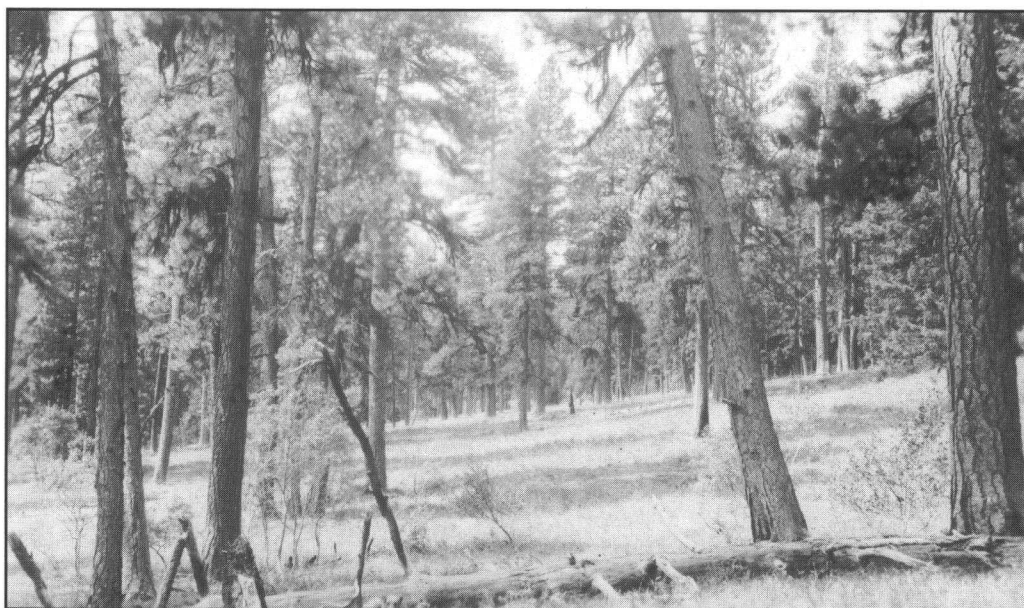


EXCELLENT YELLOW PINE TIMBER IN A DRAW TRIBUTARY TO TUCAÑON RIVER. AREAS COVERED BY TIMBER IN SUCH DRAWS ARE ISOLATED, ALTHOUGH THE TIMBER ITSELF IS OFTEN OF EXCELLENT QUALITY. THIS IS A SMALL MILL PROPOSITION.

[Editor's Note: Someone (possibly Irving Smith, Pomeroy District Ranger in 1962–1968) wrote on the original copy of the report that this photograph may have been taken in School Canyon.]

The Transition type is determined by altitude. Here on the cooler and moister slopes are found certain species possessing a comparatively shallow root system and thin bark, which cannot withstand the long summer droughts of the lower altitudes. As regards species this type is distinguished from the other two types already described by the large per cent of alpine fir, spruce, and lodgepole, which comprise the dominant species. There is a total absence of yellow pine in this type and larch is apt to be scarce. Although the trees are generally of small size in the Transition type, they are unusually well formed and, being fairly tolerant, are capable of standing very close together, thereby yielding a large quantity of wood useful for many purposes. However, over a large part of the area covered by this type, the trees, since the last great fires, have not had sufficient time to grow to sizes which make them of commercial value for lumber. Although trees on this type frequently grow to saw-log size, the most valuable stands are composed of lodgepole and larch in proportions suitable for posts and poles.

Plate X [10]



PURE STAND OF YELLOW PINE ON A GENTLE SOUTH SLOPE ON THE WENAHA. SUCH STANDS ARE RARE ON THIS FOREST AND OF SMALL EXTENT. LOCATED APPROXIMATELY IN SECTION 7, T. 5 N., R. 41 E., W. M.
[Editor's Note: Someone (possibly Irving Smith, Pomeroy District Ranger in 1962–1968) wrote on the original copy of the report that this photograph may have been taken near Eden Bench.]

In certain regions considerable of this timber is now taken out under free use. During the fiscal year ending June 30, 1913, 2305 M. B. M. were cut mostly from this type. From two acres which were cut clean, 75 cords of lodgepole wood were obtained, but this is not a maximum cut by any means. If fire and insects can be kept off from the Transition type, stands of this sort will be the rule rather than the exception.

But the Transition type has a greater future than present value. Its value will increase in proportion as the supply of first-class material now so much more accessible is diminished. Every effort should be made to prevent the inroads of fire and insects, which prove so particularly deadly in this type. Perhaps the greatest present value of the Transition type is for watershed protection. All the important creeks on the Wenaha have their sources in this type.

Plate XI [11]



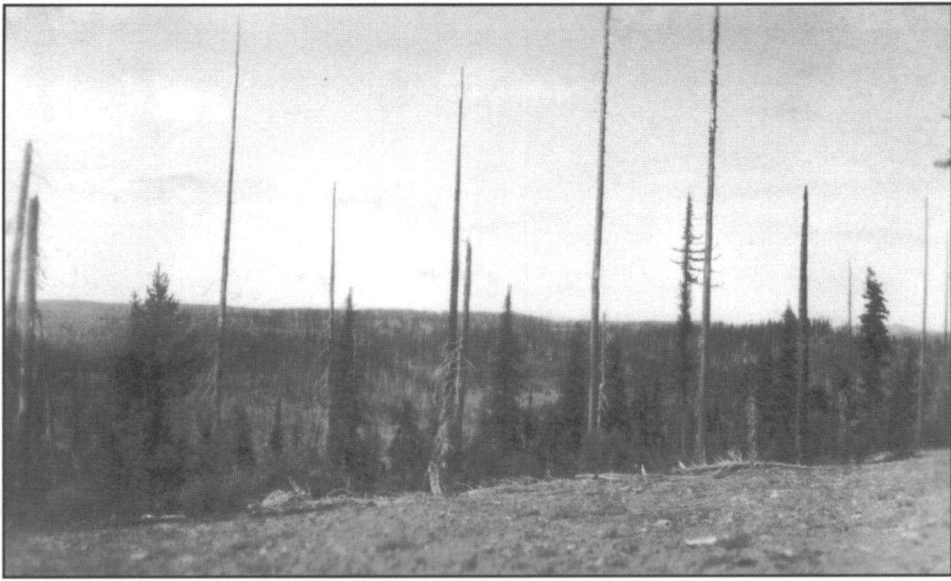
CLEARWATER RANGER STATION. A SUMMER STATION SHOWING DENSE STAND OF LODGE-POLE IN BACK-GROUND, FROM WHICH A GREAT DEAL OF FREE USE WOOD IS TAKEN DURING THE SUMMER. IT IS NOW COMPRISED IN A FREE USE AREA. FIFTY CORDS OF WOOD PER ACRE IS NOT UNUSUALLY CUT FROM SUCH STANDS, WHICH IS THE EQUIVALENT OF 25,000 BOARD FEET, ALLOWING 500 BOARD FEET PER CORD AS A CONSERVATIVE CONVERTING FACTOR. [Editor's Note: A copy of this photograph is contained in the Umatilla National Forest historical files in Pendleton, Oregon. It was taken by M. N. Unser on July 30, 1913. Location is shown as approximately section 5, T. 8 N., R 42 E., W.M. Caption is "Cabin at Clearwater Spring Ranger Station." According to the *History of the Northern Blue Mountains* (Tucker 1940), the Clearwater Ranger Station was converted from an old trappers cabin, probably in 1909.]

Plate XII [12]



PART OF THE SAME STAND AS SHOWN ON PLATE XI, SURROUNDING CLEARWATER RANGER STATION, SHOWING FREE USE WOOD CUT AND PILED, LYING BY THE SIDE OF THE ROAD.

Plate XIII [13]



LOOKING ACROSS A FREQUENTLY AND BADLY BURNED AREA IN SEC. 4, T. 4 N., R. 40 E., W. M., IN THE TRANSITION TYPE.

Plate XIV [14]



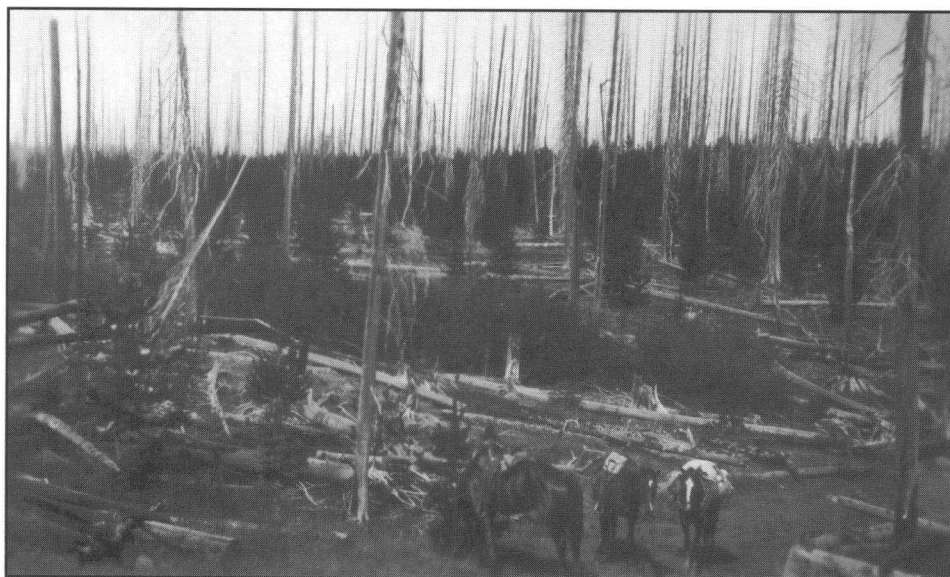
BURN IN THE TRANSITION TYPE NEAR TABLE ROCK MOUNTAIN.

Plate XV [15]



THESE PHOTOGRAPHS SHOW TYPICAL BURNS IN THE TRANSITION TYPE ON THE WENAHA. THIS TYPE OF FOREST SUFFERS MORE THAN ANY OTHER FROM FIRE BECAUSE OF THE SMALL SIZE OF THE TREES, THEIR THIN BARK, AND THE CLOSENESS WITH WHICH THEY ARE USUALLY FOUND GROWING TOGETHER.

Plate XVI [16]



In the reconnaissance work classification of the various types was always based on differences due to external physical conditions of site, such as climate, soil, soil moisture, topography, and exposure, and not on differences based on composition or mode of origin. Certain species demand particular conditions and when they find these conditions, they are able to hold the ground for themselves over all comers, if unmolested by some unnatural physical accident. So that, although it might be possible to establish on the present site of any one particular type, by artificial means, either one of the other types, it is not likely that this strange type would be able to maintain itself there indefinitely without receiving aid more or less frequently from the outside.

As regards numerical importance, the species occur in the three types on the Wenaha according to the following table –

Numerical Importance of Different Species Growing on Different Slopes

South Slope Type	North Slope Type	Transition Type
Yellow pine	Grand fir	Lodgepole
Douglas fir	Douglas fir	Alpine fir
Grand fir	Larch	Engelmann spruce
Larch	Yellow pine	Grand fir
	Spruce	Douglas fir
	Lodgepole	Larch

A complete list of the tree species occurring on the Wenaha is given in the next table. The first seven are given in the order of their commercial importance according to the present demand –

- 1 White pine (scarce)
- 2 Yellow pine
- 3 Douglas fir
- 4 Larch
- 5 Lodgepole
- 6 Engelmann spruce
- 7 Grand fir
- 8 Alpine fir
- 9 Black cottonwood
- 10 Quaking aspen
- 11 Mountain birch
- 12 Alder
- 13 Yew
- 14 Juniper
- 15 Mountain mahogany

Plate XVII [17]



Plate XVIII [18]



TWO VIEWS OF TYPICAL CREEK BOTTOMS ON THE UMATILLA RIVER
NEAR BINGHAM SPRINGS AND CORPORATION RANGER STATION, WHERE
BLACK COTTONWOOD FORMS THE PRINCIPAL SPECIES.

It was noticeable that the individual members of certain species attain to larger size on the Wenaha Forest than on the Umatilla, especially among the less important species. Alder occurs often over two feet in diameter and yew occurs in tree form a foot or so in diameter and is often cut in free use for posts for which it proves to be excellent. Black cottonwood attains a D.B.H. of 6 feet and quaking aspen of 15 or 16 inches. These dimensions are larger than those found on the Umatilla. Engelmann spruce and alpine fir occur much more abundantly on this Forest than on the Umatilla, especially in the northern half where it frequently attains a size of 5 feet D.B.H. Mountain birch does not occur at all on the Umatilla, but here it is found in nearly all the river canyons where sometimes it attains a D.B.H. of 18 inches.

Plate XIX [19]



FRY MEADOWS. THESE MEADOWS ARE USUALLY FOUND IN THE TRANSITION TYPE, STREAMS FREQUENTLY HEADING IN THEM. THEY ARE OLD LAKE BEDS WHICH HAVE SLOWLY FILLED IN. THE SOIL IS TOO WET FOR TREES BUT FAVORABLE TO THE GROWTH OF SOFT GRASSES YIELDING EXCELLENT SUMMER PASTURAGE.

[Editor's Note: Someone (possibly Irving Smith, Pomeroy District Ranger in 1962–1968) crossed out the word "Fry" on the original copy of the report and replaced it with the word "Brock."]

Non-reforesting Areas.

The non-reforesting areas on the Wenaha are of four kinds, (1) Meadows, (2) Burned-over areas, (3) Ridges around the boundaries of the Forest and close to the lower limits of tree growth, and (4) High, rocky ridges in the interior.

(1) The open meadows occur mostly in T. 4 N., R. 40 E. and T. 5 N., R. 41 E. where they form about five per cent of the area. They occur wholly within the Transition type, and are so typical of the higher portions of all National Forests that no description of them is necessary. They are always an advantage in a Forest, as providing good pastures, camping places, etc.

(2) Most of the burned-over areas on the Wenaha are restocking. There are a few areas, however, over which, because of the complete destruction of the seed trees and great quantity of willow brush, tree growth is finding it difficult to get another start. Such an area occurs at the head of Meadow Creek, T. 7 N., R. 40 E., and the surrounding country contains many smaller regions covered by clean burns. Parts of the northern half of T. 4 N., R. 40 E. also experienced clean burns. Such burns are only typical of the Transition types on the Wenaha.

(3) Undoubtedly the barrenness of both class (3) and (4) is due in large measure to fires, but it has been so long ago since the forest cover in these regions was destroyed that no visible sign of the fires has remained, such as charred stumps and knots and fallen trees.

Plate XXI [21; the report did not contain a Plate XX.]



ELK FLAT. A TYPICAL MEADOW IN SEC. 5, T. 5 N., R. 41 E., W. M. NOTE THE LARGE SIZE AND ABUNDANCE OF QUAKING ASPEN.

In those interior regions having high, rocky ridges, successive fires destroyed, not only the forest, but in doing so made conditions for subsequent tree growth difficult. The steep sides of the canyons, often 2,000 feet in depth, resulted in severe erosion from heavy rains and melting snow, so that, coupled with a severe climate, reproduction on these ridges is at best very precarious. This region is above the yellow pine zone, and very scattered Douglas-fir and juniper are at present the only species with a little grand fir in the canyon bottoms. I have not seen anywhere in the Blue Mountains such high elevations so bare of forest cover. Even the creek bottoms are so narrow that trees are not able to find room enough on which to stand. This region is included in the interior portions of the Forest, shown on the map as unsurveyed.