

GUIANA FORESTS



River Transportation in British Guiana.

Prepared by National Geographic Society, Washington, D. C.—WNU Service.

A BRITISH expedition recently explored a new region—a region among the treetops of 100 to 200 feet forest giants in British Guiana.

Here, indeed, was a place worth every effort to investigate—a rolling, wind-tossed sea of green extending for several thousand square miles, and teeming with a life which was biologically unknown. Lured by its promise, a group of men decided to examine an area of forest on the right bank of the Essequibo river.

They were equipped with a variety of climbing apparatus, such as line-shooting machines and rocket-firing guns for propelling ropes over high branches, thousands of feet of cordage for making hauling constructions, pulleys for use in block and tackle, iron spikes for building spike ladders, and wooden scaling ladders capable of extension. Long-range spray pumps were procured for shooting poisons at insect warriors that would obstruct invasion of their homeland.

The area selected was ideal for a survey; for it was as nearly primeval forest as could be found. Here everything was in an unaltered state, with all the trees in their natural associations, as they had no doubt existed for a thousand years or more.

The forest was composed of tall, straight trees. Some were monsters, with broad buttressed bases which, like pillars, supported the overhead roof. The vast majority, however, were of smaller size, crowded together by thousands, all competing, struggling, jostling with one another in their efforts to get their heads into the tree-roof. Every tree examined was perfectly straight. Hardly one had a branch until near the canopy, where, at a height of about 70 feet, occurred division into a simple fork.

Bush ropes of every degree of thickness spread about in this thicket of straight poles. Some swung across in pendulous loops, or hung down like loose swinging cordage; others twisted themselves round the great tree trunks in straggling, serpentine coils. Mosses, epiphytes, lichens, and ferns crowded the trunks and high branches in tropical profusion. Overhead the tree tops made a green roof, and the fallen vegetation covered the floor with a thick, soft carpet of mold.

Formed a Roof With Windows.

Throughout the forest were glittering lights, bright spots, streaks, and luminous patches, where shafts of sunlight, breaking through the roof, were reflected from the underlying foliage as from a multitude of suspended mirrors. On every side was the richest fertility; and, contrastingly, in the prostrate trunks and rotting leaf mold was equal evidence of death and decay. The silence, the gloom, the stillness, the luxuriance were most impressive.

The oval-shaped heads of the trees came close to one another and interlaced their branches, and creepers and bush ropes linked them together to form a sort of roof, though not such a perfect thatch as books on equatorial forests often lead one to imagine. In places the tree crowns stood out somewhat separately. The sky was by no means completely hidden. Here and there were windows, skylights in the canopy, through which the sunlight streamed lance-like to illuminate the "cellar" floor.

From the ground one could catch only passing glimpses of the life in the foliage. Monkeys went crashing through it now and then. The larger birds, such as parrots and toucans, were seen here and there, splashes of color in its shadows. Smaller songsters were evident only by their voices, for in the gloom it was difficult to locate a bird through the mass of foliage. Occasionally, with powerful glasses, one might see through a canopy window a lofty tree covered with blossoms, about which nitted bright butterflies.

The expedition's knowledge of that zone of life was confined to what a gun could bring down from it for museum purposes. Of the intimate lives of its birds and mammals it is fair to say that biologists knew very little; and, so far as its smaller fauna was concerned, its reptiles, insects, arachnids, and other creatures, the expedition was almost in complete ignorance.

It was not difficult to move about in this primeval forest. Secondary growth is somewhat tangled, but the primitive bush is more open and accessible. There is no need to hew a way through it with an ax. What checks progress is usually a fallen tree-trunk or a pile of roots or an impassable swamp. Nor does thorny vegetation cause trouble. There are some palms with spiny trunks or stems, but never such barriers of prickles as are common in less humid forests.

One soon finds how easy it is to get lost in the forest. On account of the sameness of the vegetation on every side and the absence of both horizon and landmarks, it is a problem to recover bearings once one becomes confused.

Some Peculiar Trees.

Some of the great trees are most arresting. There is the stilted tree, or awasakull, whose roots thrust themselves above the ground and incline to form a pyramid supporting on its apex the tall, straight trunk. Another striking kind is the fluted tree, or yururu, with the whole length of its trunk marked by deep longitudinal grooves, as if it were composed of a thick bundle of smaller saplings. More abundant but none the less attractive, is the mora, the immense trunk base of which is drawn out into buttresses like the witches' seats of Channel Island chimneys, some of them often following a sinuous course before they reach the ground. The bush ropes are of all varieties and patterns designed to give them strength. Some are twisted with such perfect regularity that one can scarcely tell the difference between them and ropes made by man.

The expedition's chief trouble in the forest came from dampness. When it arrived, the wet season was at its height. Every day rain fell in torrents; the air was 80 per cent saturated with moisture; every leaf in the forest dripped. A step into the bush meant getting soaked to the skin; and, once wet, clothes never dried. One had to become accustomed to starting off each day in the sodden clothing of the evening before. As a consequence of this continual moisture, boots and everything else of leather soon were covered with a green mold; animal skins and specimens rotted; photographic plates refused to dry. Much has been written of discomforts in a tropical forest, but few writers impress on their readers that the real trouble is persistent dampness.

The expedition had, of course, its share of insect pests, of which the chief were the ticks and the bete rouge. These minute creatures, speck-like in size, live freely on the forest vegetation. While wandering about, they collected on clothes, underneath which they soon found their way to the tenderest parts of the skin. The bete rouge, an almost invisible harvest mite, was much the more annoying of the two. It burrowed into the skin, making a red irritation that felt like an attack of nettle rash. The only way to deal with these tiny creatures was to go over the whole body carefully each day and pick them off. The penalty for neglecting this all-important duty was a sleepless night of scratching.

Indians Helped the Climbers.

Members of the expedition anticipated difficulties of many kinds, for they had been impressed upon them before they sailed for Guiana. The trees, they had been warned, were too tall and straight and branchless for climbing; their timber was too hard to take climbing irons; their crowns were too full of dangerous rotten branches to afford footing; the foliage, everything, swarmed with armies of venomous ants; and even if they did get into the canopy, they would be able to see very little in the dense vegetation. Such were the difficulties that had been predicted for them. Fortunately they found that they had been considerably exaggerated.

The first tree they attempted to climb was one that they had left for the purpose in the center of their camp clearing. Confidently they brought into action their rocket apparatus and the line-throwing gun, but both proved virtually useless. They sent their missiles forcibly enough—too forcibly in fact—not only into the canopy but far above it! It was impossible to aim the rope over the branch selected and to bring the end back to earth through the tangle.

The devices of civilization thus failing them, they engaged the services of two Arawak Indians, who provided much more satisfactory help, since they had been accustomed to climb and tap for its milky gum a sort of rubber tree known as the balata.

By using loops of rope passed around their bodies and the tree trunks, these "balata bleeders" could make ascents in any part of the forest.

They first attacked the camp tree, climbing it by means of spikes on their leather boots, and carrying a light line with them up to the first fork at 75 feet. Meantime a block-and-tackle apparatus had been got in readiness. The upper end of it was made fast to a suitable branch; to the lower end was attached a seat made of straight pieces of stick cut in the forest, somewhat after the fashion of a boy's chair. Seated on this, one could be hauled to the point of fixation in the crown of the tree.

AGE FINDS JOY IN QUIET WAYS

Compensation for Passage of the Years.

Ever since the days of Cicero's "De Senectute," which we labored over in junior high, as they call it now, men have been fretting about old age, a writer in the Indianapolis News comments. It is generally considered a time of life to be dreaded because of the sadness connected with declining activity. But sometimes, the window opens upon a new vista, and we follow Vida T. Scudder's pages in the Atlantic with joy because they seem so sane.

Having suddenly found herself arrived at the age of seventy, Miss Scudder is inspired to take up her pen for the benefit of those in like predicament. She regards it as a matter of triumph, rather than discouragement, to have reached a time when one may be glad to be left off of committees and like responsibilities, and spend the remainder of her days in the enjoyment of the scenes of life from the shelf to which she has been relegated, when one may read, not classics or any prescribed course, but just what has long been coveted as desirable or particularly restful.

Lady Mary Wortley Montague evidently had a like aspiration, writing to her daughter, Lady Bute: "Daughter, daughter! Don't scold, don't call names. You are always abusing my pleasures, which is what no mortal will bear. Trash, lumber, and stuff are the titles you give to my favorite amusements. We all have our playthings; happy are they that can be contented with those they can obtain; those hours are spent in the wisest manner that can easiest shun the ills of life and are the least productive of ill consequences. . . . The active scenes are over at my age. I indulge with all the art I can, my taste for reading. If I would confine it to valuable books, they are almost as

rare as valuable men. I must be content with what I can find." (What would she have thought of the output of books, today?)

Continuing, Lady Mary writes: "As I approach a second childhood, I endeavor to enter into the pleasures of it. Your youngest son is perhaps at this very moment riding on a piker with great delight, not at all regretting that it is not a gold one and much less wishing it an Arabian horse, which he would not know how to manage. I am reading an idle tale, not expecting wit or truth in it, and am very glad it is not metaphysics to puzzle my judgment or history to mislead my opinion. He fortifies his strength by exercise; I calm my cares by oblivion. The methods may appear low to busy people, but if he improves his strength and I forget my infirmities, we both attain very desirable ends." How Lady Mary would have enjoyed a jig-saw puzzle!

The typical old lady of a generation but lately gone, sat by the fire with white cap and spectacles, knitting socks for the whole family. Today, she dons a stylish stou, wears the new Oxford, in lieu of the somewhat passee loznetto, and sallies forth to solve problems of politics or contract bridge. A dear young Hoosier friend sent me the following original verse:

GRANDMOTHERS

Whenever I think of grandmothers, I think of cherished things; Of creamy, delicate old lace, And dear remembered dreams. I think of modest mignonette Dew-drenched at new day's dawn; Of perfumed sweetpea's pastel tints; Of shade upon a lawn. I think of Artemisia gray, Like flames of silver hair. Of lips that speak of troubled hearts Love's words of wisdom rare; Of fragile Dresden china in A corner cupboard old. Of Eden hours of new-wed love, Too sacred to be told; Of shaded lights on autumn night, And sound of summer rain; Of new-born baby's lips against My breast that stings with pain; Of work-worn hands, that yet are soft That minister with loving care; Of love that makes e'en drudgery A shining halo wear. Oh precious, priceless grandmothers! Without you, how great dearth! Oh grandmothers! Life shows in you True beauty on the earth.

Wit and Humor



SHE COULDN'T FIND IT

Fondly little Ruth's father and mother were watching their daughter rock back and forth ecstatically in the little black chair they had just brought home to her.

Proudly the father said: "We got a bargain in that little chair, all right!"

Whereupon Ruth proceeded to get out of the chair, look at it closely, and then to lift a woe-begone face and say:

"Where is it, daddy? I can't find any bargain in my chair!"—Indianapolis News.

Too Much Democracy

Friend—Don't you worry—tomorrow, when you give your speech you will have all intelligent men on your side.

Candidate for Parliament—That is what is worrying me. I would rather have the majority.—Lustige Blatter (Berlin).

HIS ANSWER

Two little boys had put away in the larder over night two small cakes for consumption the next morning. When, however, one of them went the next morning to secure his cake, he found only one there, and that had a large piece bitten out of it. Full of wrath, he went in search of his brother.

"I say," he demanded, "I want to know who took that bite out of my cake?"

"I did," answered his brother. "What did you do it for?" "Well, when I tasted it I found it was your cake, so I ate the other one!"—Chelsea Record.

Good Reasoning

Ned had gone with his cousin to the country for milk. They waited while a cow was milked, got the milk and returned home.

It was a very hot day. Ned's mother took the can of milk and said: "Oh, the milk is still warm."

"Well, mother," said Ned, "it is no wonder. The cows were standing right out in the boiling hot sun."

In a Circle

Mrs. Plumpleigh—Is your new antifat treatment successful?

The Doctor—It is so very successful that all my patients have to follow it up with an antilean treatment, and that works so well that they return to the antifat treatment and then—



THRIFTY CAR OWNERS WROTE this CODE

THE THRIFTY CODE FOR TIRE BUYERS

I hereby promise to trade in my thin, worn, dangerous tires today and equip my car before prices advance again, with the Safest and Most Dependable Tires I can find.

They must have:

Every fiber in every High Stretch cord in every ply saturated and coated with pure liquid rubber, to give me Extra Blownout Protection.

They must have:

Two Extra Gum-Dipped Cord Plies Under the Tread for Greater Strength and Blownout Protection.

They must have:

Scientifically designed non-skid tread to give me EXTRA SAFETY.

Mr. Car Owner

MAKE the Thrifty Code—your Code. Raw materials, commodities and wages are up—and going higher. When you know tire prices are going higher—it's smart to Buy Now and Save. **REMEMBER**—Firestone Gum-Dipped Tires hold all world records on road and track for Safety, Speed, Mileage and Endurance. Drive in today—we'll save you money and serve you better.

THE NEW Firestone SUPER OLDFIELD TYPE

Built to equal all first line standard brand tires in quality, construction and appearance, but lower in price—another Firestone achievement in saving money for car owners.

Ford 4.50-21	\$7.10	Buick 4.50-21	\$9.00
Ford 4.75-19	\$7.55	Plymouth 5.25-18	
Nash 5.00-20	\$8.35	Studebaker 5.50-18	10.15

Other Sizes Proportionately Low

3 LINES of Tires with **Firestone NAME and GUARANTEE**

Built with Superior Quality and Construction Yet Priced as LOW as Special Brands and Mail Order Tires

Firestone OLDFIELD TYPE		Firestone SENTINEL TYPE		Firestone COURIER TYPE	
Ford 4.50-21	\$6.30	Ford 4.50-21	\$6.70	Ford 30x3 1/2	\$3.45
Ford 4.75-19	\$6.70	Ford 4.75-19	\$7.30	Ford 4.40-21	\$4.25
Nash 5.00-20	\$7.45	Ford 4.75-19	\$6.05	Ford 4.75-19	\$4.65

Other Sizes Proportionately Low

See Firestone Gum-Dipped Tires made in the Firestone Factory and Exhibition Building at "A Century of Progress" Chicago

Firestone

Go to your local Firestone Service Dealer or Service Store—Buy today before prices go higher