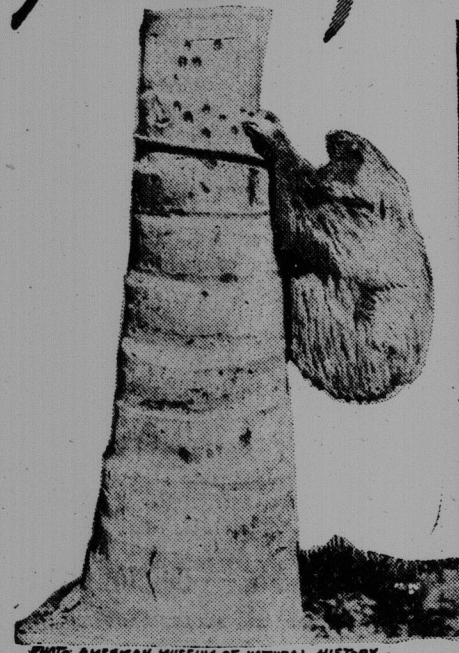


An Expedition to Explore Roosevelt's "River of Doubt"



The tree sloth which climbs trees and eats the bark

Scientists to Spend Two Years in South American Wilderness First Traveled by Colonel Roosevelt

By Dr. W. H. Ballou

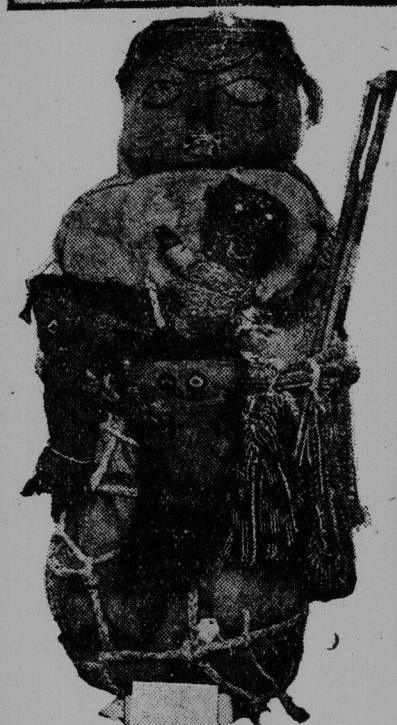
THERE may be as strange animals, plants and Indian tribes elsewhere in the world as in South America, but no one would venture to say where to look for them. Little that comes out of that archaic continent remotely resembles such life as we are familiar with, nor has any man of science, from Agassiz to today, been able to find other than hypothetical relationships elsewhere on earth with its living creatures and its tangled masses of vegetation. The nearest that has been come to similar creatures refers to certain fishes in Africa almost directly across the Atlantic Ocean from the mouth of the Amazon. On this basis, together with a similarity of certain fossil forms of the African and South American coasts, geologists have set up a former hemisphere, which they call "Gondwana Land," as representing a time when there was no southern Atlantic Ocean and when an east and west continent replaced the present South America and Africa. To the mind of geology, the Atlantic Ocean is rather a young fellow and the Pacific still younger, if not in its youth. In former times there were horizontal oceans and continents, which some earth shake-up has changed into north and south running lands and waters. Every expedition which returns from South America brings back something entirely new to knowledge. Although the sum total of our knowledge of South America makes many books, what is not known, in comparison, would mean a vast library.

An expedition has just sailed from New York to make a two-year intensive exploration of a section of South America, covering a million square miles, into which no white man has ventured, so far as is known. This section is largely the bed of the ancient Andean Sea, dried up for the last several geological ages, but now largely overgrown with tangled jungles and forests, penetrated by rivers and bodies of fresh waters. The area forms sections, or hinterlands, of Brazil, Ecuador and Peru on the east side of the Andes and partially along the slope of the mountains. If you exactly divided South America into north and south sections, it would lie wholly in the northern half at the southern end.

Its letterhead reads: "The Mulford Biological Expedition of the Amazon Basin; H. H. Rusby, M. D., Director, College of Pharmacy, Columbia University, New York City." Six men of science accompany Dr. Rusby, a moving picture outfit and a rifleman. The roster includes Dr. Frederick L. Hoffman, statistician and vice-president of the Prudential Life Insurance Company, who is to study conditions that affect white races; Dr. William M. Munn, government entomologist, who will collect and study insects; Dr. Everett Pearson,



Colonel Roosevelt and Colonel Rondon, photographed with a day's bag of game at Porto Campo



Prehistoric mummy from the region west of Cordillera, Peru

University of Indiana, to study and collect fishes; Dr. Orman E. White, Brooklyn Botanical Garden, representing the Harvard University herbarium; George S. McCarthy, Woodbury, N. J., rifleman; Gordon McCragh, Oriental scholar, to direct motion picture work, and Owen Cattell, photographer.

Dr. Rusby will concern himself in searching for new medicinal drug plants. In addition he will have an eye out to collect and photograph certain other objects, a description of which is outlined below. Dr. Rusby may well answer to the popular term of "tough guy." He is undertaking, at the age of seventy-six years, the roughest type of exploration. He started on the trip after six weeks of confinement with pleurisy, at La Caruso, against all advice and appeals of family, physicians and friends. He is perfectly familiar with all the conditions and hazards to be encountered. He made the trip entirely across South America in 1890, on the latitude of Rio de Janeiro, at a cost of only \$6,000, while the first estimate for the present expedition, owing to higher costs, is \$50,000. The official announcement of itinerary for the coming exploration reads: "From La Paz the expedition will plunge into the unknown terrain and traverse the uncharted regions of the Madeira and Amazon rivers. It will cross the Andes at an elevation of 19,000 feet, beginning at Antofagasta, Chile. It will trace the Amazon to its source. The territory passed over by the late Colonel Roosevelt will be traced and his River of Doubt charted to its source."

All that is known of the River of Doubt is contained in Roosevelt's work. Through the Brazilian Wilderness, Charles Scribner's Sons, publishers. From this work the following much condensed account of the mysterious stream is taken by permission:

"The region through which it flows was unknown, no civilized man having ever penetrated it. All conjecture as to what the river was, its length, its place of entering into some highway river, was mere guesswork. Colonel Rondon, Brazilian explorer, in 1899 entered it upon his maps as the Rio da Duvida, or River of Doubt, having come across a part of it and could only guess where it debouched. It might go into the Gy-Parana, in which case its course would be very short; it might flow into the Madeira low down, in which case it would be very long; or, which was unlikely, it might empty into the Tapajoes. So I combined my expedition with a new one starting out by Colonel Rondon, in an effort to find out something about it."

"On February 27, 1914, we started down the River of Doubt into the unknown, not knowing whether we should come out later on the Gy-Parana or Madeira or where, whence, which. We only realized that the stream had been properly christened. Our general course was northward, toward the equator, through a vast forest. . . . We had a hard and dangerous but very successful trip. No fewer than six weeks were spent slowly, with peril and exhausting labor, forcing our way down through what seemed a literally endless succession of cataracts and rapids. For forty-eight days we saw no human beings. One of our best men lost his life in the rapids. Under the strain one of the men went completely mad, shirked all his work, stole his comrade's food, and when punished by the sergeant, was with cold blooded deliberation, murdered the officer and fled into the wilderness. Colonel Rondon's dog, running ahead of him while hunting, was shot by two Indians and by its death probably saved the life of its master. We have put on the map about 300 miles of the river, of which the up-

per course was unknown and unguessed by anybody, while the lower course, while known for years to a few rubber men, was utterly unknown to map-makers. It is the chief affluent of the Madeira, which in itself is the chief affluent of the Amazon."

"It was time to get out. The wearing work, under very unhealthy conditions, was telling on every one. Half of the camaradas had been down with fever and were very much weakened. Only a few of them retained their original physical and moral strength. Some had had sores on their legs from bruises received from water work. I was in worse shape. The after effects of jungle fever still hung on. My leg, which had been hurt while working in the rapids with a sunken canoe, had taken a turn for the bad and developed an abscess. I could hardly hobble and was pretty well laid up. When my serious trouble came we had only canoe riding ahead of us. It is not ideal for a sick man to spend the hottest hours of the day stretched on the boxes in the bottom of a small dug-out, under the wellnigh intolerable heat of a torrid sun of the mid-tropics, varied by blinding, drenching downpours of rain, yet I could not be sufficiently grateful for the chance to get out. . . . And finally we saw the Dipper above the horizon."

One has to read this wonderful book clear through to know something of the awful hazards of exploration in the interior of South America. Yet the Rusby expedition, notwithstanding Roosevelt's emphatic declaration in the book that it is no business proposition, no place to risk the lives of good men, will take similar chances, and probably be even more grateful when the chance comes, if ever, to get out alive, however crippled. Rusby saw strange things on his last hurried trip, but was unable either to collect or photograph them. Further, he got accounts from natives of even stranger



Natives of Matto Grosso participating in a dance for the members of the Roosevelt expedition

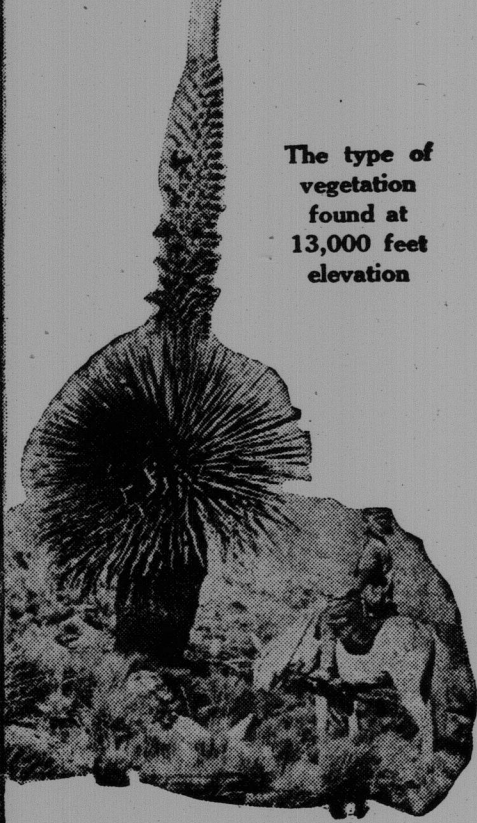


A Parecis woman and child at Rio Sacre

things, which he feels he must get in touch with at all cost of life and limb. He gave me the story of these things as he saw them himself or heard them from the natives. Here, in brief, is his chronicle from his own lips:

The Indians who shot the dog of Colonel Rondon were identified by the peculiar arrows and arrow points left on the field, a tribe known as the Parens Tin Tin. They are so primitive in structure that scientists refer to them as "fossil Indians," meaning that they belong to a past age of the world, the Pleistocene. Only two of them have ever been killed and examined, so far as there is record. The two had such peculiar sex organs that the organs were preserved as curiosities, one set of which Dr. Rusby owns and the other set of which is in the museum of Para. After killing the dog these queer tribal representatives must have heard the sound of guns, and being wary and superstitious fled into the bush. At least, neither the Roosevelt nor other expedition ever saw representatives of the tribe alive. Hence the anxiety of Rusby to get in touch with them. The bows taken from the two dead types years ago were nine feet in length and of prodigious strength. The arrows were six feet long, the tips three inches wide and spoon shaped at the points, the spoons being an inch deep. The tips were feathered so that the arrows in flight revolved with great rapidity, going long distances with ability to cut off a man's head and completely penetrate body and bones.

The most deadly poison used on arrow tips which Rusby heard of comes from a peculiar species of frog, of which there is no zoological knowledge and which he hopes to collect. It must be found by collecting all species of frogs until the right one is located. The story is that the natives sweat the frog or toad, whichever it is, over a fire by



The type of vegetation found at 13,000 feet elevation

To Search for New Medicinal Plants—Strange Animal and Vegetable Life Which Thrives in the Perilous Jungles

fastening the creature alive to a thong. The sweat from its body is collected by dripping into gourds and is a white, milky substance. A mere touch of the liquid is sufficient to kill a man. So virile is the poison that on arrow points fifty years old it is as deadly as when fresh.

Dr. Rusby particularly desires to find and collect a plant of similar nature to hashish, a word the meaning of which seems to be "assassin." The natives call the plant Caspi. Humboldt witnessed its effects and Richard Spruce saw the plant, a large shrub, covered with stinging hairs and bearing poisonous red fruit from flaming blossoms. So far as is known, it belongs to a great order of harmless plants known as Malpighiaceae, of which this, if found, will be the only medicinal member. Weiss, a well known South American explorer, at least got a glimpse of a cup of the decoction of the plant and noted its effects on a native. It is alleged to be a drink used by certain tribes of natives before going into battle. Its effect is such that the warriors run amuck, unfearing of man or beast and fighting to the last extremity. After killing as many of the enemy as remain on the ground the warriors go into a trance until the effects pass off. The natives told Dr. Rusby of a snake-catching bird, of which we have no knowledge, differing from the American snake-catcher, companion to the cormorant. The natives use the bird as a retriever and as a guard for their habitations against snakes. When set down in the bush it captures all types of snakes found, bringing them to its master, the same as a dog gathers birds. It is a land bird, described as the size of a stork, with long, very speedy legs.

Dr. Rusby is anxious to get specimens of the so-called man-eating fish Roosevelt encountered. This fish is named the piranha or cannibal fish. Of it Roosevelt says in his book above named: "We caught many fish belonging to the most formidable genus, the fish that eats men when it can get a chance. It is the most ferocious fish extant. Unlike most other carnivorous fish, the piranhas will attack anything of any size. They will snap off fingers trailed in the water from canoes. They rend and devour men or beasts wounded in water. Blood excites them to madness. They tear waterbirds to pieces and bite off tails of other fish when hooked. They are stout bodied, with blunt jaws armed with razor-edged, wedge-shaped teeth."