

River of Doubt Now on Brazil's Official Maps



"Apartment House" of a Brazilian Parakeet, or Parrot. Each Opening Leads to "Court," Around Which Are as Many as Five Apartments.

THE River of Doubt is to get on the map. The man who helped Colonel Roosevelt explore the river in 1914 has just returned to New York after spending ten months in its vicinity, and says that the Rio Teodoro, also known as the Rio Dúvida, or River of Doubt, will be known to posterity as the Rio Roosevelt. This is the decision of the Brazilian Government, within whose territory the stream flows.

George K. Cherric, the explorer in question, took luncheon with Colonel Roosevelt last week and, in addition to giving him the news above mentioned, intensely interested his fellow-explorer with tales of the Colonel's most understanding ear of the "best deer hunting in the world." Mr. Cherric was a widely known field naturalist and explorer even before Colonel Roosevelt indorsed him both as ornithologist and man during the Roosevelt South American expedition in 1914.

"The so-called River of Doubt," said Mr. Cherric, "about which, by the way, there has never been any doubt, is a river of Brazil, which rises in the Corde heira dos Parceis, in the western part of the State of Matto Grosso. It flows northward between longitude 59 degrees and 61 degrees west for a distance of 930 miles and empties into the Madeira River, of which it is the chief affluent. It was explored and placed on the map by the Roosevelt exploration in 1914, the whole story of which was truthfully and most carefully set forth by Colonel Roosevelt in his book, 'Through the Brazilian Wilderness.'

"The Brazilian Government will now put the River of Doubt on the map for all time and will commemorate the exploration trip of Colonel Roosevelt—who, I should like to say, in all scientific matters, is a most careful man—by officially naming the stream the Rio Roosevelt. This should eliminate from controversial discussion by explorers and geographers all points in connection with the river, except the one question of whether or not the waters at certain points flow up hill or down.

"The Brazilian Government is making an official map for the purpose of marking the stream as the River Roosevelt. Records concerning that stream and its adjacent territory and other sections traversed by the Roosevelt expedition are being prepared from copies of the data obtained by Colonel Roosevelt. You may recall that Colonel Rondon, Chief of the Brazil Telegraph Communications, discovered the source of this



George K. Cherric.

stream, but the main part of the river, then unexplored, he named the 'River of Doubt.' He says that Colonel Roosevelt has removed the doubt."

Mr. Cherric spent nearly a year in the Paraguayan and Brazilian swamps and forests. He brought home with him 400 animal specimens and more than three thousand bird skins, including those of perhaps a dozen species that are entirely new to science, not to speak of remarkable tales and pictures, including photographs of bird apartment houses built to accommodate as many as 200 tenants and having private entrance, unequalled air and light, and other features.

Several of these pictures are here published for the first time through the courtesy of the American Museum of Natural History, under whose auspices Mr. Cherric's explorations were conducted to complete the work begun by the Roosevelt South American expedition in 1914. In fact, Colonel Roosevelt supplied part of the fund for the Cherric expedition, having great respect for Cherric's ability as an explorer.

"Like most of the field naturalists I have met," Mr. Roosevelt once said of Cherric, "he was an unusually efficient and fearless man. In addition to being out after birds in every spare moment, he helped in all emergencies. He was a veteran in the work of the tropic wilderness. We talked together often, and of many things, for our views of life, and of man's duty to his wife and children, to other men, and to women, and to the State in peace and war were in all essentials the same.

"I kept continually wishing that they [the naturalists of the expedition] had more time in which to study the absorbingly interesting life histories of the beautiful and wonderful beasts and birds we were all the time seeing. Every first-rate museum must still employ competent collectors; but I think that a museum could now confer most lasting benefit, and could do work of most permanent good, by sending out into the immense wilderness, where



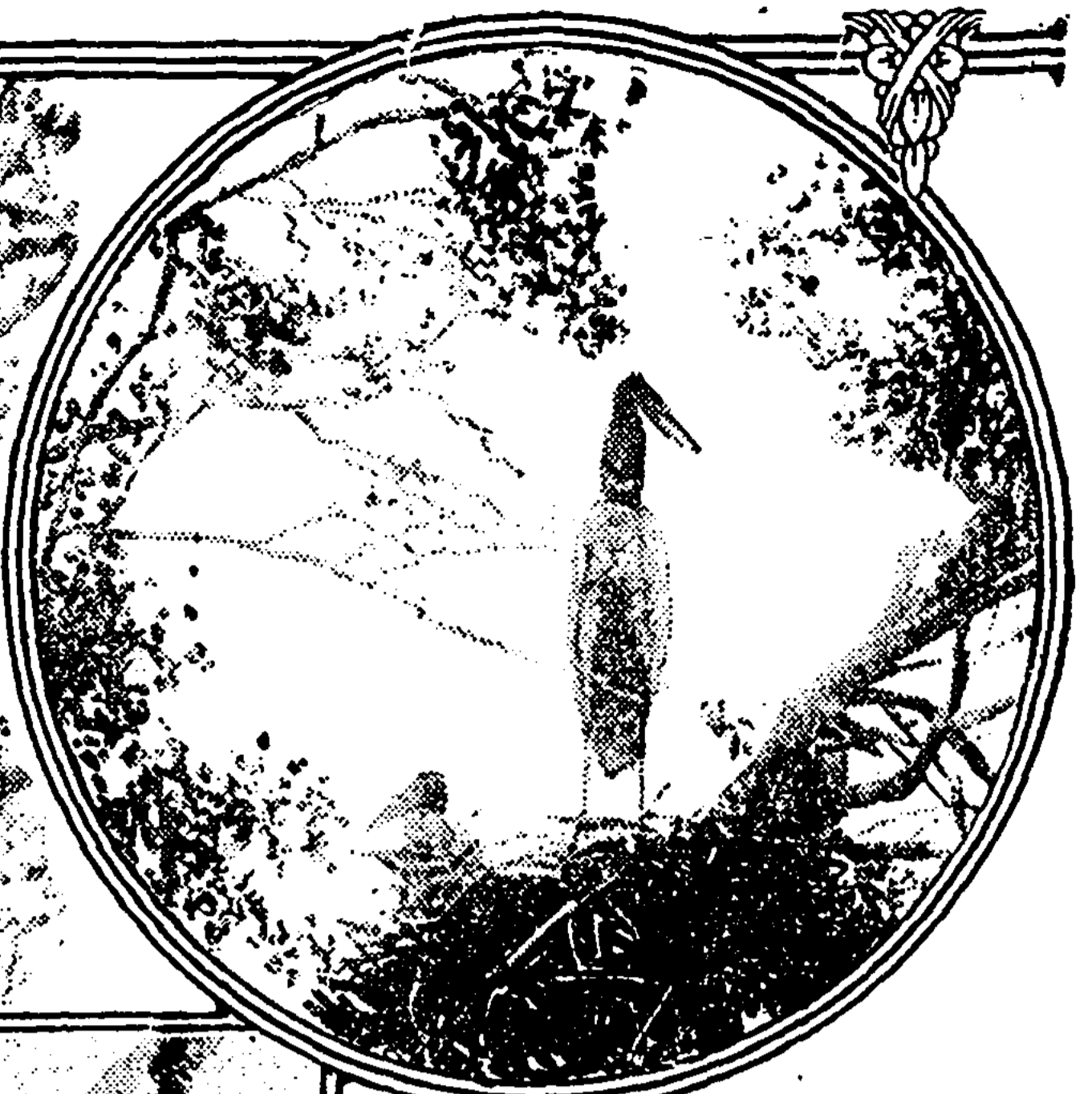
First Known Photograph of Giant Ant Eater Climbing a Tree.

"I could scarce believe my eyes—there he was, thirty feet from the ground."

wild nature is at its best, trained observers with the gift of recording what they have observed. Such men should be collectors * * * but they should * * * primarily be able themselves to see, and to set vividly before the eyes of others, the full life-histories of the creatures that dwell in the waste spaces of the world."

In the case of Cherric, the American Museum followed Colonel Roosevelt's advice. The explorer started from New York early in May, 1916, passing through the Panama Canal and making his first stop at Guayaquil, Ecuador. He did his first collecting at Duran, a railroad terminal just across the river from Guayaquil, thence proceeded to Quito, the capital of Ecuador, making three or four stops en route, and camping out at the base of the volcano Chimborazo. The party traveled down to the coast and embarked for Callao, in Peru, went from there to Lima, the capital, down to Mollendo, port of entry for the highlands of Peru. From Mollendo they went to Cuzco, (also spelled Cuzco,) the old Inca capital, where Mr. Cherric says abundant evidences of the civilization remain.

"From Cuzco," Mr. Cherric said, "we fitted out a mule train for the Urobamba Cañon to the site of the ancient City of Refuge, Macchu Pichu. We passed the old City of Ollantambo, where there are ancient Inca fortifica-



Jabiru Advised the Young Folks to Lie Low Until Danger Is Over.

tions, one in particular set on a spur where great blocks of granite, 6 by 12 feet, had been transported for hundreds of miles. I doubt if today a goat could climb it.

"In the region of this old city we did considerable bird collecting. We found probably the most species of birds as were there in the time of the Incas. At Lake Titicaca I separated from Dr. Frank M. Chapman, curator of birds of the American Museum of Natural History and Director of field work in South America, and started to finish the work that was begun by the Roosevelt South American expedition in 1914. In the original Roosevelt expedition we moved so rapidly that it was impossible to make careful observations of the habits of birds and animals. The chief object of my present trip, therefore, was to make as many discoveries as possible about the way in which the birds and animals lived.

"From Lake Titicaca I wished to get over into the interior of Matto Grosso, in Brazil. Owing to almost impassable trails and the rainy season the longest way around was the shortest way there. One can get railroad facilities to within three days of the northern frontier of Argentina, and it is then three days by mule train to Laquiaca. From Laquiaca I had the railroad to Buenos Aires, and from there a steamer to the head of navigation on the Paraguay River, but with a transfer en route at Asuncion, the capital of Paraguay. From Asuncion I took passage for Puerto Pinasco on the Paraguayan Chaco—a vast alluvial region. Here I began the real work of the expedition. I made Puerto Pinasco my headquarters, then worked back into the country for 80 to 100 miles westward.

"The Indians of the Chaco region have been more successful in opposing incursions by white men than have any other people of South America. Up to a few years ago it meant annihilation for the white man to oppose the Chaco Indians. There is real danger in the Chaco, but, so far as I am aware, I was never face to face with it in connection with the Indians. Of course, I was well guarded.

"It was in this region that I found the rhea, or South American ostrich, very abundant. The hunters have been after them for years for their plumes. The Indians are fond of the flesh, also of the eggs, which are a little strong. Incidentally, the Indians are not at all particular whether the eggs are fresh. The biggest nest I found contained thirty-seven eggs, one of which is ample to supply the needs of a hungry family.

"Most of my time in the Chaco was devoted to the study of the smaller birds. I took pictures of many species not hitherto photographed. But of greater interest were the cranes, herons, and particularly a species of parakeet—of the family of parrot—which was abundant along the Paraguay River and other water courses in the Pantanal region of the Matto Grosso.

"So far as I had previously known, parrots and parakeets built individual nests, but now I found them living in community nests—great bird apartment houses, I might almost say. Some nest-

ed in natural cavities in trees; others constructed their homes in nests of termites, (white ants.) I found great colony nests that accommodated perhaps 200 birds of the *Bolborhynchus*, a generic name for certain of the parrakeet family. The parrakeets, as a whole, have narrow, wedge-shaped tails, the central feathers being longest, and they are all of small or medium size. They belong to the family of the parrot, being distinguished by the peculiar shape of the tail and their smaller size.

"Some of the larger apartment house nests were 8 to 12 feet in diameter, dome shaped, constructed entirely of small, thorny twigs intricably interwoven so that the structure was remarkably strong. And the arrangement of the twigs at the top of the dome was such that it shed water perfectly. The entrance to these great nests was always from below. In many cases there were entrance tubes sticking from the under side like the legs of some great insect.

"These entrance tubes varied in length from a few inches to a yard or more. Like the body of the nest, they were constructed from slender thorny twigs from eight inches to one and one-half feet in length, twisted and interwoven so cunningly and so strongly held together that birds in full flight would alight on the end of these long entrance tubes, then the tubes would oscillate and vibrate slightly and the birds would quickly twist themselves into the entrance of the nest and disappear. Though these entrances were so strongly constructed, one could see through them and watch the bird as it ascended to its airy suite.

"At the top of each entrance tube was the chamber in which were separate nests of one, two, three, or more pairs of birds. The greatest number of nests I found in any single chamber was five. There may be more.

"The eggs are a dull white in color and almost spherical in shape, a trifle smaller than those of the domestic pigeon, and from five to eight eggs are deposited in each clutch.

"I learned that these nests were constructed entirely by parrakeets, but that occasionally they were willing to let some other bird, say, the jabiru, or other species constructing large nests of twigs, build their foundations, or, more properly, the roofs of their houses. In several cases I found the parrakeets beginning the construction of nest chambers and their entrance tubes below. These were connected to the great platform nests which were occupied by jabiru.

"I was also much amused by another species — the black-faced parrakeet. While this bird does not nest in colonies, one would frequently see groups of a dozen or more investigating the cavities in old tree trunks for a nesting site. Although only one pair would occupy a cavity, all the relatives of that pair, apparently, were on hand to assist in the selection of quarters and to take posses-

sion. But the most amusing part of the whole proceeding was the way the birds would go down into the cavity. Instead of going down head first, as one would naturally expect a bird to do, they would twist and work about until, finally, the tip of the tail was inside the cavity; then the bird would gravely work downward.

"In the meantime, the friends and relatives would cling to the outside of the tree trunks, discussing the neighborhood and awaiting the return of the explorer from the depths of the cavity. After a selection has once been made only a single pair will be seen about the nesting site. The black-faced parrakeet is perfectly satisfied with the lining of the cavity as he may find it—no nesting material is taken in. Both parents assist in the incubation.

"The bird that has been free will alight on the top of the nest snag or stump, and apparently says something to his mate, who will, in a very few minutes, appear at the entrance to the nest. After a short conference, the newcomer descends, tail foremost, of course, and the one that has been relieved will hurry away with a good-bye call into the treetops and to the company of other fellows on furlough.

"There seems to be the best of understanding between the jabiru and parrakeets. Frequently I would see the parrakeets, in their work of building to the jabiru nest, climb around the upper edge occupied by both young and old jabiru. The latter seemed mildly interested in the work of their little green-colored noisy companions. But aside from this mild interest they would pay no attention to their neighbors. When the old jabiru are not present the half grown or larger young may be seen walking around the edge of the nest, sometimes stretching their legs and wings, just as any other young animal might do. Very early in their lives they learn to give an ominous rattle with their great black bills. That is a sign of their displeasure.

"I was always greeted with this rattle, and no matter how many hours I would spend in the neighborhood of the nests there would be the same clatter of bills. When either one or both of the old birds returned and saw that there was an intruder in the neighborhood, they seemed to speak immediately to the young birds, warning them of danger or perhaps simply telling them that the part a young bird should play was one of modesty. The young would instantly crouch down, and leave the bill rattling to their elders.

"This happened once when the old birds apparently felt that there was danger abroad, or inquisitive neighbors, because when I watched the nests with my field glass from a distance the young birds would remain standing or walking about, much as they did before the arrival of the parents.

"Both parents assisted in bringing food to the young. When there were

very young birds in the nest, if the parents or adult birds saw that I was in the neighborhood they would remain for many hours without approaching the nest. If they were surprised, they would immediately change the course of their flight, go away for 300, 400, or 500 yards, and alight on the open plains, where they would walk about in the most unconcerned fashion, evidently to disarm suspicion. If I remained near the nest they would settle down on their heels, and it would become a game of patience between us—I waiting for them to come to the nest, they for me to leave the vicinity.

"One time when hunting for jabiru I had an interesting and humiliating adventure. I had marked a fine specimen on the opposite side of a marsh that I had been skirting, and carefully stalked the bird. I was using a rifle, and fired a metal jacket bullet; in order not to tear the specimen too much. My bird dropped, and I looked about to find a way to get across the marsh, but discovered I would have miles to walk if I went around.

"So I piled my clothes in little heaps, put my gun on top, and, taking my knife between my teeth, I proceeded to wade and swim across the marsh in order to secure my specimen. As I emerged on the other side, I saw great white wings spread out and the bird lying flat before me. I stopped to gloat over it for a moment, but was surprised to see my bird get to his feet. There was an effort to spread his wings, but apparently the ball had passed through both shoulders, leaving the wings helpless. But I was soon to learn that those thin legs were far from helpless.

"The jabiru started to walk away from me. I increased my speed a little. Mr. Jabiru increased his speed a whole lot, but still seemed to be merely walking. Soon I was running at full speed, and I must have been a very striking figure in the absence of any clothing. But I was totally unconscious of that fact in my eagerness to overtake the jabiru. But vain hope! The harder I ran the faster the jabiru walked. Finally the bird disappeared, leaving me a very angry and much chagrined hunter, and it didn't add anything to my comfort when I had to wade and swim back in that scum-covered water—still carrying my knife between my teeth. For all I know he's walking yet.

"It was new to me that the colonies occupied early in the season by great white herons and egrets were later turned over to the wood ibis. While visiting one of these colonies, I was much amused by one young bird that felt he had reached the stage of development where it was undignified to remain on a mere platform of twigs. After watching him for a few moments, he climbed out of the nest and, stretching his legs apparently to determine whether they were strong enough to carry him, he stepped to a nearby limb, then gradually

worked his way downward through the branches, at last dropping down to the ground.

"Here he went through curious motions before he seemed to gain his balance. Then he stood for a few moments, regarding me with anything but a friendly eye, but finally decided that I was harmless, and, with long strides, made his way between the trees to an open space out at the edge of the island of trees, where the colony was situated and where a great many other young birds and adults were congregated.

"I have been acquainted with the giant ant eater from Central America southward through Colombia and Venezuela and many parts of Brazil. I thought I knew all about him; consequently there was a great surprise in store for me when, as we were riding one day, my Indian guide pointed across the open plain to a clump of trees and said: 'There goes an ant eater climbing that tree.'

"I had always supposed that they confined themselves to the ground, but here was one 30 feet from the ground and entirely at his ease. Had I not seen it, I would have taken anybody's story with mental reservation, but I was also to learn from my Indian guide that, contrary to my own experience, the giant ant eater has a varied diet, not confining himself to white ants. He destroys eggs, sucking up their contents, and also kills young birds, crushing the bodies, sucking the juices from them and probably swallowing some of the harder parts.

"While I am talking about ant eaters it may be of interest to tell of an experience I had with one of another species—the tamandua—a form which is more arboreal than terrestrial. While considerably smaller than the giant ant eater, I found it not devoid of courage. I was walking along the forest path one day, when I heard a rustling in the bushes. I quickly turned my gun in that direction, and was on guard to see what was coming.

"What was my surprise to see a tamandua burst through the thicket and immediately rear himself on his hind legs. With a peculiar hissing sound, he came for me as fast as his short legs would permit. I had a good deal of respect for those front claws as I backed away, holding out my gun barrel, at which the animal struck viciously. Time and again I backed away, but the animal persisted.

"In all the twenty-five years that I have spent in the tropics I have never before been attacked by any animal without provocation, and it was doubly strange that the charge in the present instance should have been made by an animal that is considered most inoffensive. I mention this case because of its isolation and in the hope that, if there have been similar experiences, they may be put on record."