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A Winter with the Birds in Costa Rica

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WITH PHOTOGRAPHS BY THE AUTHOR

PROBABLY every ornithologist has hoped sometime in his life to visit the Tropics and see for himself the many wonderful things of which he has heard or read so much, and especially to see alive and in their natural environment, the strange and beautiful birds so inseparably associated in his mind with tropical lands. I had myself for many years looked forward to the possibility of such an enjoyable experience, but without serious expectation that my hope would ever be realized until the receipt of a cordial invitation from my friend Don José C. Zeledon, of San José, Costa Rica, offered the desired opportunity, and I accordingly started for Costa Rica, accompanied by my wife, on November 28, 1904. Arriving in San José on December 8, we remained until May 28, 1905, our stay therefore covering a period of nearly six months, during which the country was traversed from ocean to ocean and from sea-level to the highest point of land, the summit of Irazú, 11500 feet in elevation.

Owing to negligence of the express company to which it had been consigned for shipment, my outfit did not reach me until February 26, 1905. No collecting could therefore be done during the first two months; but the time was in part profitably employed in making trips to different points in order to look up the most promising and convenient locations for collecting. In this preliminary work, as well as in the subsequent collecting trips every possible assistance was rendered by my friends Don José C. Zeledon and Don Anastasio Alfaro, Director of the Costa Rica National Museum, one or the other, sometimes both, of whom accompanied me on each occasion. One could not desire more agreeable or helpful com-

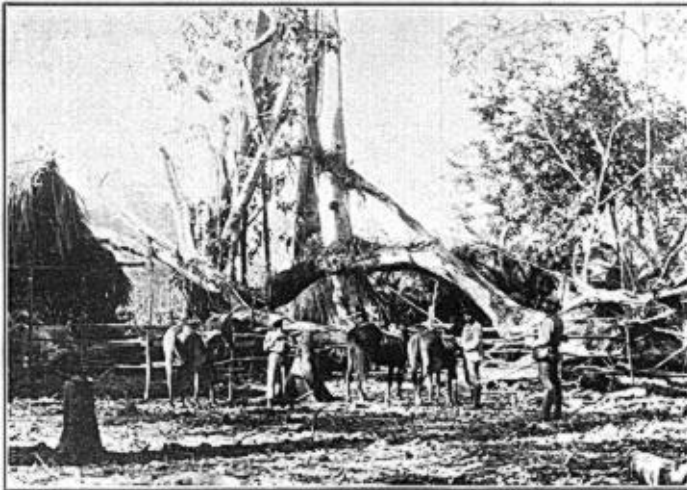
rades than these excellent ornithologists and enthusiastic collectors, and I consider myself most fortunate to have been favored by their companionship in a country where everything was new to me and where natural conditions were often such that I could not alone have even reached the localities where collections were made.

In a country where everything is novel and full of interest even but six months' experience embraces far too much to be told in a few pages; consequently I shall attempt only a brief account in this article.

Before arrival of my outfit only three trips to a considerable distance from San José were made; to Santo Domingo de San Mateo^a (December 30 to January 2), to the summit of the volcano of Poás (January 21 to 23), and to Pigres, on the Pacific Coast (February 2 to 5). The last named place having been visited a second time (after arrival of the outfit) and some three weeks spent there, a somewhat detailed account of that locality and our experiences there will be given further on.

Santo Domingo de San Mateo is the present terminus of the railroad from San José to the Pacific, and is situated on the upper edge of the coast plain about thirty miles from Punta Arenas, the Pacific port, with which connection is made by

horseback and car-rata. For a considerable distance around the town the country is cleared and under cultivation or in pasture, the nearest forest being along the Rio Grande de Tárcoles, a few miles to the southeast. In some of the *potreros* (pastures) are patches of woodland of limited extent, mostly along the small streams flowing into the Rio Grande. As little time was spent here, and there



LANDING ON RIO GRANDE DE TARCOLES: END OF HORSEBACK RIDE TO PIGRES

was but one gun between us (Mr. Alfaro being my companion on this occasion) few birds were obtained, the only one of special interest being *Pteroglossus frantzii*, a rare toucan, six or seven of which I had the tantalizing pleasure of watching in a tree close by while Alfaro was elsewhere with the gun. Our time was too limited to allow of a visit to the forest along the Rio Grande, just beyond which loomed high and inviting the noble peak of Turuvalles, completely covered with primitive forest and never even visited by a naturalist!

Poás (8700 feet) is the only active volcano in Costa Rica, and is in plain view from San José as are also Irazú and Barba, the last lying between the other two. Starting from Poás we proceeded by rail from San José to Alajuela, where we took horses and rode to San Pedro de Alajuela, remaining over night and resuming our journey, by bright moonlight, at four o'clock next morning. Reaching the *lecheria* (dairy farm) at the upper edge of the cleared zone after daybreak we rested a few

^a Names of localities are so frequently duplicated in Spanish American countries that in order to be precise it is necessary to give the name of the province or canton in addition to that of the town or settlement. Neglect of collectors to do this has caused many serious errors in books concerning the range of species.

minutes and were refreshed by good draughts of fresh milk and hot coffee. We then entered the primitive forest which still covers the last thousand feet, more or less, of the mountains, proceeding slowly and laboriously along a narrow trail of stiff black mud, up to the horses' knees and often deeper, and full of tree roots in which the horses' feet were frequently entangled. The density of this forest was such that it was impossible to leave the trail at any point without cutting a way with *machetes*; and as the undergrowth consisted mostly of slender climbing bamboos with exceedingly hard stems, which almost completely filled the spaces between the trees, the difficulty of making much headway may be imagined. The variety of trees in this forest was very great, many of the trees very large, and some of extreme beauty. All were fairly burdened with orchids, bromeliads, and mistletoes, the latter often conspicuously and brilliantly flowered and the bromeliads mostly of brilliant hues of orange, scarlet, or crimson. Here is the home of the royal

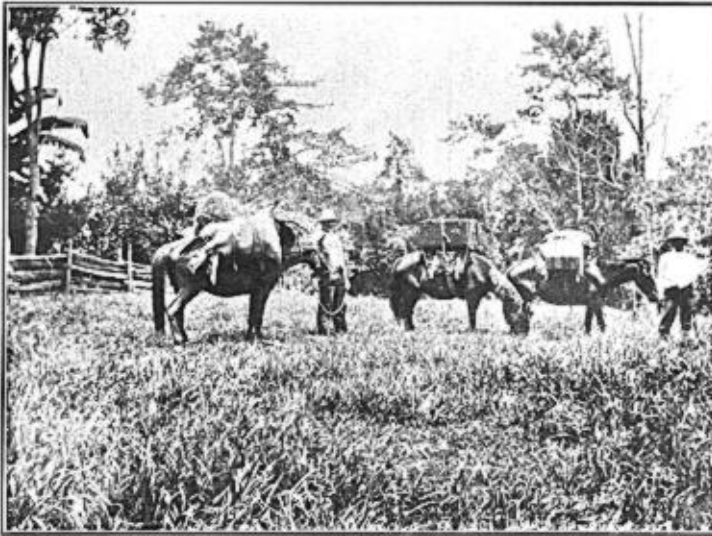
Quetzal (*Pharomachrus mocinno*)—the most gracefully and magnificently beautiful of all birds—amid surroundings no less magnificent than itself. Leaving our horses in an open basin (an ancient crater) surrounded by forest, we proceeded on foot to the summit of the cinder cone, but were disappointed in our view of the crater, which was completely filled with dense clouds, except for a moment when the strong wind dispersed the mass of vapor and allowed a brief glimpse of the boiling lake, 400 metres below. From the summit of the cone we descended to the lagoon (another extinct crater) filled with clear water of almost icy coldness, and surrounded by dense forest. Our stay was much too short to enable us to learn much of the birds found on Poás, but they were everywhere present in great variety, except on the bare summit, where none whatever were seen.



OFF FOR THE HILLS AT BONILLA

Pigres is a very small village of thatched bamboo *ranchos* on a narrow point of land (in reality a mere sand-bar) at the mouth of the Rio Grande de Tárcoles, which enters the Pacific Ocean where the latter joins the Gulf of Nicoya. Across the latter is plainly seen the mountains of the peninsula of Guanacaste, and to the southeast the densely forested coast mountains of the mainland, extending toward Panama. Between the narrow strip on which Pigres is situated and the mainland proper is the *estero*, a broad creek of placid water bordered along each side by dense mangrove swamps. These are very narrow and of limited extent on the Pigres side, most of the land consisting of bare sand, covered in places with

patches of a trailing *Ipomæa* with broad leathery leaves and pink flowers, matted clusters of sprawling and very thorny leguminous shrubs, and thickets of low, spreading mimosa-like trees, interspersed with the poisonous *manzanilla*. Notwithstanding the dry season and almost total absence of flowers, birds were very numerous in the vicinity of the village, especially two species of ground dove (*Columbigallina rufipennis* and *C. passerina pallescens*), and Morellet's seedeater, (*Sporophila morelleti*), large flocks of which were almost continually feeding on the ground about the ranchos. *Columba rufina* and *Leptotila verreauxi* were also common in the thickets, while among the smaller birds the most numerous was the mangrove warbler (*Dendroica bryanti castaneiceps*). In these thickets were also secured two examples of the rare *Vireo pallens* and several of the still rarer hummingbird, *Arinia boucardi*, until then only known from the single pair in the Paris Museum, collected in 1875 by Mons. Adolphe Boucard, at Punta Arenas. The true home of the latter is in the mangrove swamps, and the specimens secured were stragglers which had come outside to feed upon minute ants and other in-



OUR PACK-TRAIN AT BONILLA

sects infesting the mimosa trees. The large and rare *Phæochroa cuvieri* was the only other hummer found on the Pigres side, where it was less common than on the opposite side of the estero. Immediately beyond the fringe of mangrove swamp across the estero a high mixed forest extended for many miles, and daily trips were made there, much the larger part of the species collect-

ed being found on that side only. Scattered through this forest were many specimens of the *roble de savana* (oak of the savanna), a bignoniaceous tree resembling the catalpa but with much larger flowers of a beautiful rose-pink color, among which many birds were feeding, especially several kinds of hummingbirds and the Baltimore and orchard orioles. Of the former, *Amazilia fuscicaudata*, *Phæochroa cuvieri* and *Chrysuronia elicia* were most common, no *Arinia* being found. The undergrowth in this forest consisted chiefly of small *biscoyal* palms, bristling with long, slender thorns of needle-like sharpness, which proved a great nuisance and interfered seriously with our work. An attempt was made to clear them away from beneath one flowering *roble* tree to which hummingbirds seemed partial, but a few strokes turned and broke the edge of our machetes and we gave it up. Farther inland the *biscoyals* gave way to tall *cannas*, which were easily felled but grew so close together and so tall (sometimes ten to twelve feet) that birds could not be seen. In this forest of tall and often very large trees (we measured one which was thirty feet from the extremity of one buttress to that of the opposite

one and which had an enormously broad top, spreading certainly more than 150 and possibly 200 feet) macaws, parrots and parrakeets were exceedingly numerous and noisy, the species collected being *Ara macao*, *Amazona auripalliata*, and *A. salvini*, and *Brotogeris jugularis*. A rare toucan *Pteroglossus frantzii* was also found, likewise *Trogon bairdii*, both of which were obtained. Several times we saw the snow-white cotinga with yellow bill (*Carpodectes antoniae* Zeledon) and although one was shot it could not be found.

Among the biscoyal palms and tall ferns in more open parts of the forest, as well as in a clearing, grown up with bushes and tall weeds, the Pacific red-backed tanager (*Ramphocaelus costaricensis* Cherrie) was abundant and as the National Museum possessed only one specimen of this bird, and that a young male, we of course collected a fine series.



IN THE POTRERO AT COLIBLANCO

The next place to engage our attention was Bonilla, on the Atlantic slope, whither we proceeded by way of the railroad to Limon, leaving the train a few miles below the town of Turrialba and walking from there to our destination, our outfit being transported on horses up the steep and rough mountain trail. Bonilla is an estate of 3000 acres belonging to Don Francisco Lopez Calleja, who, together with his partner and manager, Don Juan Gomez, of Turrialba, made every possible provision for our comfort and the successful prosecution of our work. Although Bonilla is in the humid so-called hot zone, its climate was by no means uncomfortable; but owing to the roughness of the ground and density of vegetation, collecting was very difficult except in the cleared areas. The latter (*potreros* or pastures), however, were wonderful places on account of the great variety and abundance of birds and the ease with which they were procured. Macaws (both the large green one, *Ara ambigua* and the red, blue and yellow one,

A. macao), parrots (*Amazona virenticeps* and *A. salvini*, *Pionus senilis* and *Pionopsitta haematotis*), and parrakeets (*Conurus finschi*) were exceedingly numerous, as were also two large toucans (*Ramphastos tocard* and *R. brevicarinatus*), two smaller toucans, the common *Pteroglossus torquatus* and rare *Selenidera spectabilis*, being less abundant. Four species of trogons (*Trogon massaena*, *T. clathratus*, *T. caligatus* and *T. tenellus*) were common, and smaller birds almost without number. We estimated the total number of species to be found in this locality at not less than four hundred. Every day were heard many species of which we were not able to get even a glimpse, owing to the dense vegetation and difficult ground of the places which they frequented. At this place we witnessed a flight of migrating hawks, passing northward, which comprised hundreds of thousands of individuals. They were a small species (about the size of *Buteo latissimus* or *B. brachyurus*), most of them light colored underneath but many of them wholly dusky in color;



GREAT EXCITEMENT OVER REDISCOVERY OF *GUAYASTICUTUS CORYI*

whether there was more than one species we were not able to determine. The resident hawks at Bonilla were apparently few in number, the most numerous being the swallow-tailed kite (which by the way breeds there^a), next in order being *Rupornis ruficauda* and the beautiful snow-white *Leucopternis ghiesbreghtii*. One example of the rare ground cuckoo, *Neomorphus salvini*, was obtained, and also a single male of the beautiful white cotinga, *Carpodectes nitidus*, shot by our taxidermist, Adán Lizno, from a small company which alighted in the "laurel" trees inside the corral close by the house. A single umbrella bird (*Cephalopterus glabricollis*) was secured by Alfaro, being the only one seen; and on the higher potreros the Costa Rican bell-bird, *Procnias tricarunculatus*, was occasionally seen or heard, and I had the pleasure (?) of shooting a fine male from the top of a very high tree and after watching it fall straight down for a hundred feet or more see it lodge among some air plants thirty feet up, where I could not possibly get it. The note of this bell bird is most singular, sounding like a heavy stroke with a hard mallet on a hollow log of hard wood, followed immediately by a wonderfully loud, clear and prolonged whistle—both easily heard at a distance of half a mile or more.

Not the least fascinating part of our experience at Bonilla was the shooting of hummingbirds from the flowering guava^b trees. These trees are small, open, and

^a On several occasions we saw them pulling long moss (*Tillandsia*) from the trees and carrying it to the nests they were building in tall trees on the potrero.

^b Not the tree which bears the fruit *guayava*, so universally mispronounced "guava."

spreading, so that the hummingbirds could easily be shot with the auxilliary barrel or collecting pistol. From one of these guava trees we collected fifteen species of hummers, among them several rare and exceedingly beautiful ones, as the minute, *Microchera parvirostris*, crimson with a snow-white cap, the grotesquely tufted and bearded *Lophornis helenæ*, and the thorn-tailed *Popelairia conversi*—neither of these larger than a small bumble-bee and therefore much smaller than any of our North American species.

Coliblanco, our next collecting place, is an estate belonging to Don Aurelio Lopez Calleja, of Cartago, on the lower slope of a mountain near the volcano of Turrialba, at an estimated altitude of about 6500 feet. With a good frame dwelling for our shelter and accommodation, kindly placed at our disposal by Don Aurelio, and a large clearing containing scattered trees of many kinds almost at the "back door," a more convenient collecting place could scarcely be imagined. A



ALFARO TAKING EGGS OF CONURUS PETZI FROM NEST OF WHITE ANTS

faint idea of the beauty of our surroundings may be obtained from the accompanying photograph of a portion of the potrero, a few hundred yards from the house. But a photograph, however good, gives only a weak impression of the scene, for the striking and harmonious color-scheme is wanting and therein, not less than in variety of form, consists the glory of tropical vegetation, as presented in the moist and cool upland regions. Almost every tree has its own peculiar hue of green; some are golden, some nearly russet, others blue-green, yellow-green or deep olive-green, according to the species. Most of the trees bore flowering vines or epiphytes, while some were decked in blossoms of their own, notably the erythrina trees, whose flowers were of the most brilliant vermilion, red, or scarlet. These erythrina trees were frequented by two large and exceeding beautiful hummingbirds, *Heliodora jacula* and *Eugenes spectabilis*, of which good series were secured. In some parts of the potrero, chiefly on or near the water courses, magnificent tree-ferns, of at least

three species, were common, and in wet places grew large caladium-like plants whose immense leaves more than once sheltered me from the hard showers which sometimes caught me; for in such an event it was only necessary to sever the stem with my machete, sit upon a log or rock and hold the leaf over me, its size being such as to afford complete cover and shelter.^a

As naturally would result from the difference in altitude, the birds of Coliblanco were mostly different from those of Bonilla. Of toucans there was only one kind, the green *Aulacorhamphus cæruleigularis*; of trogons only *T. puella* and the Quetzal, here at the lower limit of its range. A nest of the latter was found, in a dead stump, some twelve feet from the ground, from which a young bird, full-fledged, was taken.^b

From Coliblanco a brief visit was made to a high potrero at the base of the ash-cone of Turrialba, at an altitude of 9000 feet. There everything was different, and it seemed as if the very climax of the beautiful in Nature was there manifested. Nothing I have ever seen elsewhere so much suggested the possibilities of Paradise, and short as was our visit I consider it alone worth the trip to Costa Rica. The air was cool and bracing as our finest October weather in the States; the several hundred acres comprising the potrero were like an immense, well-kept park, with long vistas through groves and clumps of magnificent trees over undulating lawns of vivid green cultivated grasses cropped close by the grazing cattle and studded with wild violets, buttercups and English daisies. But there was never a private or public park with such trees—so beautiful or varied in form and foliage, or so bedecked with flowers. I do not think it an exaggeration to say that every tree bore flowers, either of its own or of some climbing vine or epiphyte, while nearly all were further embellished by brightly colored bromeliads and other epiphytes, ferns, or orchids. To the right rose the cone of the volcano, covered with dense chaparral, while to the left, at a greater distance but still near enough to enable every detail to be clearly seen, the long ridge-like mass of Irazú. In this beautiful park birds were far more numerous than I have ever seen them elsewhere, or at least they were more in evidence, for the clear open character of the place enabled one to see them at long distances. Large black robins with golden yellow bill and feet (*Merula nigrescens*) ran gracefully upon the green sward, and it was rarely if ever that we were not within hearing of the whir or twitter of hummingbirds, the most numerous of which was the beautiful *Panterpe insignis*, remarkable for the fact that both sexes are equally brilliant in color. That truly royal bird the Quetzal was also common here, and, like every other species, very tame. For several minutes I watched a pair in a tree close by and could not shoot them—they were too beautiful. They could easily have been photographed but I had left my camera behind. I cannot express the reluctance with which I left this most beautiful place, even though it was our intention to return;^c but in this expectation we were disappointed, for soon after reaching Coliblanco the

^a Some of these large aroids are seen in the lower middle portion of the view accompanying this article (p. 155) Referring to the wonderful variety of plant-life here I will state as a matter of probable interest, that from a single moderate-sized stump in this potrero I gathered twenty-one distinct species of ferns! I am very sorry not to be able to present in this article one or more views from Bonilla, where the vegetation was even more remarkable than at Coliblanco, though almost wholly different, owing to the difference of several thousand feet in the elevation of the two places; but I was attacked by malarial fever (wholly unknown at Coliblanco and other high places) before I could get time to use the camera.

^b This young Quetzal, "Montezuma" by name, is a contented member of the aviary of Don Jose C. Zeledon at San Jose.

^c I should acknowledge here our obligations to Don Francisco Guterrez, proprietor of the lecheria and potrero of Turrialba, and his son, Don Ramon Guterrez, for their hospitality during our stay and a cordial invitation (which we were unfortunately prevented by a bad turn in the weather from accepting) to return and continue our collecting there.

temporal (steady and protracted rains) set in and we were forced to depart for San José. During our very brief stay (of less than 24 hours) at the lecheria on Turrialba some exceedingly rare species, including one new to science, were taken. What could have been found during a week's exploration is, of course, purely a matter of conjecture!

On May 20th I started, in company with my friends Zeledon and Alfaro, on my last collecting trip in Costa Rica. Going by rail to Cartago we took horses and rode to the lecheria "San Juan" on the volcano of Irazú, at an altitude of about 8500 or 9000 feet, and from there made two trips, on foot, to the top of the volcano (11500 feet). The forest on Irazú (of which, however, but little remains) consists chiefly of oaks, and is very different indeed from that on either Poás or Turrialba. The remnant of this forest is a narrow belt just below the ash-cone, and gives way abruptly to a rather scattered growth of small trees and bushes which become more and more sparse and small as the summit of the peak is approached, until on the highest point only a scattered growth of stunted shrubs, largely ericaceous (*Vaccinium*-like) exists. It is only in this upper thicket-growth that *Junco vulcani* is found, but there it was common and we had no difficulty in securing the desired number of specimens. Its associates were a high mountain form of *Brachospiza capensis* and a small wren (*Thryorchilus* species^a), besides a few species, notably *Chlorospingus pileatus* and *C. zeledoni* and *Pezopetes capitalis*, which occur as intruders from lower parts of the mountain.

There are other matters concerning my experiences in Costa Rica, that might be of interest, but to extend this article much further might prove tiresome to the reader. Nevertheless I cannot resist the temptation to record some observations which may be useful to those who contemplate a first collecting trip to the Tropics and would like to know something as to the possible dangers and difficulties to be encountered. From my own experience I would say that these have been either greatly exaggerated or misrepresented, and that of all the alleged terrors of tropical collecting those *least* to be dreaded are the climate (except where excessive rains prevail), annoyance from insect pests, and danger from poisonous reptiles. Of danger from wild animals there is absolutely none. Even in the *tierra caliente* the heat is not nearly so great nor so oppressive as during the hottest weather in our Atlantic States, and the nights are always cool. On the mountains the climate is ideal, except where rains and heavy mists are frequent. It is true that there are, almost everywhere, some *garrapatas* (seed-ticks), *coloradillas* (red-bugs or chiggers), fleas, and mosquitoes; but I have on many occasions suffered far more from each of them in the States than at any time in Costa Rica. As to venomous creatures, I saw during the entire six months spent in Costa Rica only three snakes, two of these being harmless kinds, and not a single scorpion or centipede! No doubt there are localities where there is more or less danger from this source; but the fact that I saw so little evidence of it during an experience of six months, in all sorts of places, from sea-level to the highest point of land, is ample proof that as a deterrent to pleasurable collecting the risk is so very slight as to be really not worth considering. There is, however, a class of creatures that must be reckoned with—the numerous kinds of stinging bees, wasps, and hornets, which in certain districts (more especially in the dryer interior and Pacific slope) have their nests, sometimes several of them, in almost every tree. It is necessary to keep a sharp lookout for these, for the sting of some kinds is exceedingly painful and their attacks most savage and determined. The fire-ant is another nuisance but can easily be

^a A new form, soon to be described by Mr. Outram Bangs.

avoided since it lives inside the swollen thorns of a particular species of shrub or small tree resembling our honey locust, easily recognized and therefore easily shunned.

The *real* terrors of Tropical collecting are the absence of comfortable shelter and palatable food, when one is once away from the towns, and the limitations upon travel and transportation. Off the *carreta* roads, which scarcely exist except between the towns and main settlements, only horse trails occur, and these for the most part over excessively rough, stony, hilly, and often slippery ground. On this account one's outfit must necessarily be restricted to what can be carried on horseback^a, unless the collector be sufficiently provided with funds to be able to hire pack animals and packer. The certainty of getting wet every day when one goes into the mountains (or even elsewhere during the rainy season) is also a serious matter, and the collector should be provided with several changes of shoes and clothing, since once wet they cannot, as a rule, be dried. Another thing worth mentioning, though a comparatively trifling matter to a young and strong collector, is the physical difficulty of collecting on account of the dense vegetation and rough nature of the ground, rendering it often practically impossible to recover a specimen after it has been shot^b. Frequently birds will lodge in a dense mass of air-plants, and can only be recovered by climbing, and sometimes this is not possible. The higher one ascends the greater the difficulties from this source, for the forests reach the maximum of density on the high mountains, where they are constantly drenched with rains or mists.

What most strongly impressed me during my stay in Costa Rica was a realization of the very fragmentary character of our knowledge of Tropical bird-life. Probably in no country of Central or South America have the birds been studied to a greater extent than in Costa Rica; yet far more than two-thirds of that country have never been ever visited by a naturalist, and within sight of San José are forests that have never been penetrated. At every locality where we collected, birds were heard each day that were never seen, although constant search was made for them; and I feel quite sure that even in localities that have been more or less "worked up" there are species of birds that never will be known to Science unless through accident or until they are driven from their haunts by destruction of their forest cover. Consequently the possibilities which may result from thorough exploration should be a powerful incentive to energetic work in Tropical America, and I would advise every enthusiastic young ornithologist who desires a field without limit to choose for his labors some part of that vast region.

Washington, D. C.

^a Excellent saddle-bags are easily procurable in the towns at very moderate cost.

^b We estimated our loss on this account at an average of two birds out of three in some localities!