FIELD NOTES ON SOME CUBAN BIRDS

BY CHARLES VAURIE

DURING the summer of 1956, Mrs. Vaurie and I passed the month of July in Cuba collecting insects, and I took this opportunity to observe birds as much as possible. The western part of the Province of Pinar del Rio was visited for about two weeks, including a stay of three days (July 3 to 5) on the Peninsula de Guanahacabibes at the extreme western tip of the Island. The rest of our time, except for about three days in Havana, was spent in the southern part of Las Villas Province.

The Peninsula is most inaccessible and seldom visited other than by lumbermen. Space may be taken to describe its features briefly as it represents one of the very few remaining regions of Cuba that are relatively undisturbed.

The Peninsula is a limestone table with a mean elevation of about 40 feet, and is connected to the rest of the island by a sandy savanna. The Peninsula itself is covered by a very dense hardwood forest, a brief survey of which is given by Smith (1954) in his paper on the forests of Cuba. Except for forests that have already been very much depleted in Pinar del Rio and Las Villas, no other major forest remains in Cuba until the eastern end of the Province of Oriente is reached, a distance of about 1300 kilometers. The Peninsula at its greatest length and width measures about 90 kilometers long by 35 wide, and halfway down its length is very deeply indented by the Ensenada de Corrientes dividing the Peninsula into two arms. The northern arm was not visited by us, the southern half of the Peninsula and the southern arm being the more interesting and rugged and the least disturbed. The ground is extremely rough, much of it covered by the sharp and jagged projections of the dogtooth limestone, or seboruco as it is called in Cuba, or the limestone is weathered into innumerable holes and pockets resembling a sponge. The south coast is an unbroken wall of high cliffs (Fig. 1) and, for some distance inland, the forest is separated from the sea by a wide zone covered by low xerophytic vegetation gradually replaced by a very dense, low scrub nearer the forest. No birds were observed in this zone, but it was the home of very large iguanas and bands of the Jutia Conga (Capromys pilorides) consisting of up to six individuals. This very large rodent is widely hunted for food, but on the Peninsula the fauna has been so little disturbed that the animals could be approached in the open to within a few feet.

The Peninsula de Guanahacabibes is threatened by ruthless exploitation. At present its only economic asset is the forest (Fig. 2), but on the northern arm, which is accessible from the sea, much of it has already been cut, according to Smith. On the southern arm the more valuable trees are rapidly disappearing, and a large saw mill has been erected. Worst of all, it is beginning to be invaded by charcoal burners who use the smaller remaining hardwood species. Figures 3 and 4 show the depredations already suffered. This type of forest grows very slowly and, once it is destroyed, it is not likely to be replaced. When it is gone the Peninsula will be transformed into a wilderness of scrub and rock, as it has little soil and cannot be used for agriculture or grazing. The Peninsula, or at least its southern half, could



FIG. 1. Cliffs along the southern coast of the Peninsula de Guanahacabibes. Photograph by Fernando de Zayas.

probably be saved and turned into a permanent asset by developing it as a National Park. Its possibilities are many: campsites in the forest could be provided, it has a very striking coastline and an extremely fine, tree-shaded sandy beach at the Ensenada. Such beaches are rare in Cuba and would readily attract visitors. The tip of the Peninsula is only about 100 miles distant from Yucatán and could be used as a convenient base for sport fishermen.

ACKNOWLEDGMENTS

I would like to express my appreciation to our friends in Cuba for their cordial reception and their help. Chief of all to Ing. Fernando de Zayas, Jefe de la Defensa Agricultura, who helped us constantly and took us to the Peninsula. He is a keen entomologist and collector, knows the Peninsula well, and considers its insect fauna to be rich. Three of the photographs in this article were taken by him. Dr. Abelardo Moreno of the University of Havana received us in his home and I had the pleasure of discussing with him some of my observations on birds. He has also kindly read the manuscript and made suggestions. Dr. and Mrs. I. D. Clement made our stay at the Atkins Garden and Research Laboratory at Soledad a very pleasant one and provided us with a vehicle which greatly facilitated our work. Help and hospitality were also given to us by Carlos Petersen of Casilda, Leonardo Sorsana of Ancón, and the officials of the agricultural experimental station at Topes de Collantes. Dr. Earl E. Smith kindly provided the photograph of the relatively undisturbed forest.



FIG. 2. View of the interior of the forest. Virtually all the larger trees have been removed, but those of medium size and the saplings have not been disturbed appreciably. The photograph was taken by Earl E. Smith near the south coast of the Peninsula, and the guide in the foreground is leaning on a block of eroded limestone. The tree that has been felled is a sabicú (*Lysiloma latisiliqua*).

Systematic List

In the birds mentioned below, a complete list is given only in the case of the land birds observed on the Peninsula (this region is usually called only by the name of "el Cabo" and hereafter is called the Cape). These are the birds which could be seen readily, or, once heard, could be followed whenever possible. Because of lack of time, difficulty of the terrain, and other circumstances, an active search for other species was impossible. It will be noted, however, that on the Cape the birds of the open countryside or less densely wooded regions are conspicuous by their absence. The observations below are not necessarily restricted to those made on the Cape and species observed in other regions are mentioned. In the case of the latter, the name of the bird is placed in brackets. The order and the nomenclature follow Bond's check list (1956).

Cathartes aura. Turkey Vulture; Tiñosa.—Ubiquitous in Cuba but nevertheless not expected in the forest. A total of three was found, however, on the road near the beach. The term "road" on the Cape is a very free expression.

Buteo platypterus. Broad-winged Hawk; Gavilán.-One adult at the Cape.

[Falco sparverius. Sparrow Hawk; Cernicalo].—The Sparrow Hawk was not found on the Cape as it is a bird of the open and cultivated country. In Cuba, as is well known, the birds show two color phases, one in which the underparts are white or creamy white and the other in which they are strongly rufous, often a very deep brick red. On several trips to the valleys of the region of Viñales in Pinar del Rio I have always been under the impression that both phases are about evenly represented. Birds of the red phase, in which the whole cheek was black or virtually so, also were seen often. In the series of 54 specimens from the mainland of Cuba in the collection of the American Museum of Natural History, 16 specimens are of the red phase and 38 of the white one. The series, which was collected mostly in central and eastern Cuba, does not include specimens from Pinar del Rio. In a few of the pale phase, the breast is slightly tinged with rust, and in a few of the red phase the cheek is invaded with black to a varying extent but, with the exception of one, is not wholly black. In a series of eight from the Isle of Pines, one is red and seven are white.

[Colinus virginianus. Bobwhite; Codorniz].—The Bobwhite is a common bird of grassy fields and open hill sides and therefore was not present on the Cape. In the provinces of Pinar del Rio and Las Villas they seem to be abundant, judging by the calls heard everywhere. In Viñales Valley, coveys of very young birds were flushed in the last days of July. The mongoose (*Herpestes*) was seen also, and I wonder to what extent it preys on this species.

Columba leucocephala. White-crowned Pigeon; Paloma de Casco Blanco.—Zayas tells me it breeds in good numbers in the mangroves that fringe the northern coast. Only two, probably a pair, seen flying along the beach at the Ensenada.

Columba squamosa. Red-necked Pigeon; Paloma Morada.—Three sets of two individuals each, probably pairs, feeding or walking on the road where the forest was most dense.

Columba inornata. Plain Pigeon; Paloma Ceniza.—This species is said by Bond (1947) to frequent rather open country, but two couples and odd individuals were seen in the heart of the forest. At one of our camp sites shortly after the dawn two sat stolidly in a dead tree for a long while. Not seen on the ground.

Zenaida aurita. Zenaida Dove; Sanjuanera.-Common and very vocal.

Columbigallina passerina. Ground Dove; Tojosa.—Much less common than in the open country, but several pairs seen along the more open stretches of the road.

Amazona leucocephala. Cuban Parrot; Cotorra.—The first individuals seen were two, perhaps a pair, calmly feeding or investigating the terminal branches of a tall tree. They paid no attention to us or to the groans of the laboring Jeep. Later, bands of four and of eight birds were seen several times flying just above the tree tops. Usually very noisy in captivity (see remarks below on migrants and pets), but all those seen were silent.

Saurothera merlini. Cuban Lizard Cuckoo; Arriero.—Common or at least very vocal. Usually seen slinking through bushes or the lower levels, but one individual seen hopping along the bare branches at the top of a tall dead tree.



FIG. 3. View near the edge of the forest where it borders the savanna. To the left of the road, beyond the screen of palms, all trees have been removed, the larger ones for timber, and the small ones and undergrowth for charcoal. Photograph by Fernando de Zayas.

[Crotophaga ani. Smooth-billed Ani; Judío].—This Ani is a common bird in Cuba, where it inhabits savannas or open cultivated country with a few trees, and therefore was not present at the Cape. Its life history in Cuba has been studied by Davis (1940) at the Atkins Garden and Research Laboratory at Soledad near Cienfuegos in Las Villas. The feeding habits of the closely related Groove-billed Ani (Crotophaga sulcirostris) of Central America were studied by Rand (1953). Both species feed chiefly on moving animals, mostly insects, but, according to Davis, the Cuban one changes its food habits with the season. During the dry season it subsists largely on vegetable matter, whereas in sulcirostris no such change is noticeable, according to Rand, and vegetable matter seems to be eaten sparingly. Both species follow cattle and, according to Davis, the Cuban bird learns readily to follow closely the footsteps of a man, or even a gasolinepowered mowing machine, to glean the insects disturbed. In view of the fact that the anis and Mrs. Vaurie and I are fellow insect collectors, I tried to see how successful they were but, strangely enough, I never saw them catch an insect.

Insect collecting this year was extremely poor and even our repeated sweeps of the grass and weeds hardly produced anything. This year, and we were told also last year, the rains were very late and the rainfall very low. Many ponds and small streams that we knew from former years were dry, and during the entire month of July, when normally it rains virtually every day, we had but one hard rain and two or three light showers. This probably accounts for the great scarcity of the insect species that feed on grass and weeds. The bands of anis observed seldom numbered more than three or four, with one exception. In this case the band (or colony?) numbered 16 and was found along a road bordering a small field with drainage ditches filled with water emptying into a small stream. Very small frogs or toads and small lizards were numerous and probably were the chief source of food. Anis were seen not rarely in or near trees or bushes with small fruit.

Four days were spent at Soledad and I visited the sites of the colonies mentioned by Davis. There were no signs of breeding activity, as far as I could determine, anywhere in the Garden, July 20 to 24, and at the Bambusa Pond site, where the colonies numbered from 13 to 24 birds from June to August in 1937 and 1938, only two to three birds were seen. The grass was cut during our visit but the anis showed no particular interest in this activity. It probably was not worth the effort.

[*Tyto alba.* Barn Owl; Lechuza].—At least three individuals in the gardens of Soledad. They roost in the crowns of a very large exotic palm from Ceylon and India with huge fans about 10 feet or more across.

Caprimulgus cubanensis. Antillean Nightjar; Guabairo.—Several "singing" incessantly near our camp.

Chordeiles minor. Nighthawk; Querequeté.—Common. The nightjar and this bird probably breed along the south coast on the top of the bare cliffs or in the open zone near them. The Nighthawk is very common throughout Cuba, and not infrequently individuals can be seen hunting in broad daylight, even at noon when the sun is most intense.

The Cuban Nighthawk (gundlachii) has, as is well known, a totally different call than the Common Nighthawk (minor) of North America. Its call is polysyllabic, consisting of four rapidly spoken notes, rather than the single nasal or buzzing note of the nominate race. It seems also that, as a rule, the Cuban bird does not dive and boom, as is done by the males in North America during their courtship. These two birds are considered to be conspecific, but if, in addition to the very sharp difference in voice, the courtship performance is found to differ also to an important extent, our concept of their relationship may need to be altered.

I have never seen the Cuban bird dive and boom, but I have not been in Cuba during the mating season, which starts in March. Dr. Moreno writes me that he has seen the Cuban bird dive and boom, but "only twice." The possibility that it is a separate species has occurred to him, but he states that he has not reached a definite conclusion until he completes his studies of its courtship.

Chlorostilbon ricordii. Cuban Emerald Hummingbird; Zunzún.—Common. In the site selected for our first camp, an irregular clearing about 10 to 50 meters wide, many of these birds were seen quarreling violently and constantly with loud and exasperated shrill screams above a number of bushes covered with scarlet tubular flowers. On one occasion I counted 10 and probably others were out of sight. No sooner would an individual of either sex approach a flower than it would be pounced upon and driven off for a short distance, the two individuals indulging in all sorts of acrobatics during which the tail is spread open in a very wide deep "V." Elsewhere in the forest, as well as in the rest of Cuba where they are common also, it is rare to meet with more than one individual at a time, almost always at the same spot. Normally, they seem quiet for a hummingbird and often perch calmly for several minutes, usually in the shade, apparently resting or engaged in preening their feathers.

Mellisuga helenae. Bee Hummingbird; Zunzuncito.—This species apparently is rare, and on several trips to Cuba had been seen but once by me—in 1939 in a garden at Camagüey—although it was looked for on the other trips. Great was my delight, thereCUBAN BIRDS





FIG. 4. View of the interior of the forest. The road was built by loggers who removed all the large trees, but this part of the forest has not been invaded as yet by charcoal burners and the undergrowth is undisturbed. Photograph by Fernando de Zayas.

fore, when a male appeared at a smaller bush somewhat separated from those fought over by the Emeralds. It fed quietly for some seconds and was joined by a female of its species, and then by a male Emerald. The two species showed no signs of being aware of each other, moving about on the same bush about a foot or two apart. The contrast in the mutual behavior between the two species and the squabbling among the Emeralds a few feet away was very great. As Zayas wanted to take some pictures, the male helenae was captured easily in a sweep of the butterfly net and released a few minutes later unharmed. While held, it remained silent and at no time offered the slightest struggle. Its anxiety, if any, was expressed by one or two movements of the head and a few blinks. Zayas tells me that on several trips to the Cape he has seen but one male on each trip, always in the same vicinity. The Cubans that we talked to show much interest in this bird not only because they know that it is very beautiful but also because they have been told that the male is the smallest of all birds. Yet almost no one that we talked to had seen it. In the one that I held, the body, not counting the tail and bill, was barely over an inch long and the toes about the thickness of an insect pin of very small gauge.

Priotelus temnurus. Cuban Trogon; Tocoloro.—Common. Very stolid and quite indifferent to our presence. While we were trying to take a rest after lunch shortly after noon, an individual perched in full view about 20 feet away and over our heads and kept up his incessant song. We lost track of time but perhaps half an hour later the bird was still there, had not moved an inch, and was still singing. The song (or call) is slow, rolling, and sonorous, and can either carry for a long distance or be much muffled. The Cuba vernacular when written To co-loro is a faithful rendition of it. The To starts with a swelling of the feathers of the breast, takes nearly a second to travel up to the swelling throat where it becomes a co, and then, with a slow nod of the head, the *loro* is slurred out through the partly opened bills. Sometimes the final o is held. It is monotonous and is repeated at irregular intervals varying from about 30 seconds to two minutes, but heard from a distance, rolling and echoing along the great limestone cliffs of Viñales, it is to me one of the most pleasant sounds in Cuba. In Viñales, which we visited at the beginning and again at the end of July, the amount of song had much decreased by the end of the month.

Todus multicolor. Cuban Tody; Pedorrera.—Only one seen at the Cape, in dense underbrush, but several heard.

Centurus superciliaris. West Indian Red-bellied Woodpecker; Carpintero Jabado.----Very common and very noisy.

Xiphidiopicus percussus. Cuban Green Woodpecker; Tajá.—Common in the forest, as in the rest of Cuba, but always less so than the Red-bellied. On several occasions I have seen the two species in the same tree without signs of animosity.

[Tyrannus dominicensis. Gray Kingbird; Pitirre Abejero].—This species is one of settled open regions and therefore does not occur on the Cape. It is mentioned only because, although it is extremely aggressive, I have never seen it molest the Loggerhead Flycatcher and vice versa.

Tyrannus caudifasciatus. Loggerhead Flycatcher; Pitirre Cantor.--Common and usually very noisy but a cheerful bird to see.

Contopus caribaeus. Greater Antillean Pewee; Bobito.—Common at the Cape in clearings or other more open areas, such as roadsides and the screen of trees behind the beach.

Petrochelidon fulva. Antillean Cliff Swallow; Golondrina.—About a dozen of these birds were disturbed by us when we descended into an underground cave in search of bats. These were the only ones seen on the Cape. They are very common elsewhere in Cuba.

Corvus nasicus. Cuban Crow; Cao Montero.—The only way I can tell this bird in the field from the Palm Crow (*C. palmarum*) is through its croaking, guttural voice, that of the Palm Crow being very nasal and high pitched and rather similar to the voice of the Fish Crow (*C. ossifragus*) of North America. A band of five had apparently spent the night in a tree at our camp, were very vocal or noisy in the early dawn, and spent fully 15 minutes in loud conversation.

Mimocichla plumbea. Western Red-legged Thrush; Zorzal Real.—Common at the Cape as elsewhere in Cuba. Bond (1947) has found this species to be rather shy but, at least in Cuba, the reverse is usually true, for in many localities it seems drawn to man not unlike the American Robin (*Turdus migratorius*).¹ Two nests were found at the Cape, one at about six feet from the ground in a thick bush and the other built at about eight feet in some tangled saplings. The latter was at our resting place on the beach, and was watched on and off for about three hours. During this period, an individual singing from conspicuous perches varying between 30 and 50 feet from the nest was observed on three occasions to change places with the bird that was incubating. Exact

¹Ripley (1952:18) has merged the genus **Mimocichla** (of which the Cuban subspecies, **rubripes**, of **plumbea** is the type) with **Turdus**. I agree, however, with Bond (1956) that **Mimocichla** is sufficiently well characterized morphologically to be retained as a distinct genus. It differs from **Turdus** in having a very strongly rounded or graduated tail with large white tips, and, as shown in these notes, **M. plumbea** does not behave like a typical **Turdus**. Its song, also, is rather different. The song of **M. plumbea** is rather wack and consists chiefly of a jumble of notes, lacking the musical quality of a typical thrush song.

time was not kept but the intervals spent on the nest by both individuals seemed to vary between about 15 minutes, or perhaps a little less, to about 20. On one occasion the nest was left unattended for about 10 minutes.

The Zorzal was watched whenever possible. Its attitudes on the ground (see sketches in fig. 5) are somewhat similar at times to those of the American Robin and at other times similar to those of the Catbird (*Dumetella carolinensis*). When relaxed it holds itself not unlike a Robin, except that the tail is usually held horizontally or virtually so and the wing tip is never drooped so low. When more alert, the tail is cocked very high at a sharp angle, and it then looks and moves exactly like the Catbird, or, although more bulky, less slender, somewhat like the Northern Mockingbird (*Mimus polyglottos*). Generally speaking, when moving on the ground or through bushes and undergrowth, it

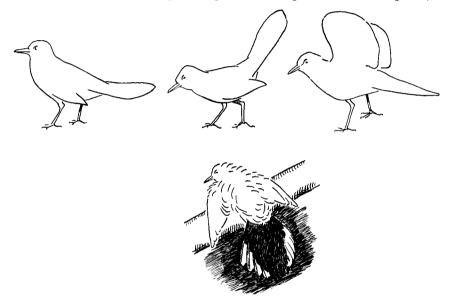


FIG. 5. Postures and display of the Western Red-legged Thrush (Mimocichla plumbea) from field sketches by the author.

more nearly resembles a large Catbird. It may be of some interest to note that the Cuban vernacular for the latter is Zorzal Gato. Its resemblance in behavior to that of the Catbird and Mockingbird is heightened during a phase of its courtship when it lifts its wing upwards and then "flashes" or waves them slightly.

This courtship performance, or what seems to have been almost certainly such a performance, was observed in the gardens of the agricultural experiment station at Topes de Collantes, Las Villas. In this garden were five Zorzals within a small open area. They seemed to pay no particular attention to one another with the exception of two individuals. These two were watched for about one hour, moving back and forth always to the same perches, namely the roof of a low shed, a fallen log about eight inches in diameter, a pile of crates and flower pots, and a small mound of earth about two feet high. One individual, no doubt the female, would move off to one of these perches, and was pursued closely and silently by the male. On alighting, the two would remain immobile for about two to three minutes. When she moved to the mound or log, the

Charles Vaurie male would alight to within two or three feet but remain on the ground and would either remain immobile, as on the shed, or would raise and "flash" its wings as shown in the sketch, meanwhile taking a few steps toward her. This display was varied by the one shown at the bottom of Fig. 5, which took place only on the log. The male would mount on the log, arch his whole body and tail forward with all the feathers erected and the tail spread open to its fullest extent, thus displaying the white tips most conspicuously. He remained perfectly immobile but this display would be interrupted at once and pursuit resumed when the female flew off. The part played by the female through the various phases described consisted, apparently, only in flying back and forth to the various perches, and most of the time her back was turned. Both birds were silent throughout and the other individuals in the garden paid them no attention.

Wing "flashing" is usually believed to be a means through which insect food is secured, the movements making the insects reveal themselves by moving, but Sutton (1946) believes that in the case of the Mockingbird it is only more or less accidentally associated with the capture of food. In the case of the Zorzal, as also in the case of the Catbird in which I have witnessed the same behavior, I have seen it to take place only during courtship performance.

As stated, the other individuals in the garden seemed to pay no attention whatever to the pair. Most of the time they apparently were searching for food, but the only insects we could find that they seemed to be taking were tiny ants and small flies. They also took some fruit, namely they would greedily pluck off and swallow in rapid succession several small red peppers about two-thirds of an inch long. Only the brightest and reddest were taken. I collected specimens of the plant and its peppers which were identified by Dr. I. D. Clement as the wild small-fruited form of *Capsicum frutescens*. The digestive system of the Zorzal must be quite insensitive. Only one of these peppers is enough to burn off the lining of my mouth, or so it feels, and if swallowed is so hot that it makes me break out in profuse perspiration. The name of the pepper in Cuba is "aji guaguao."

Vireo gundlachii. Cuban Vireo, Juan Chiví.

Vireo altiloquus. Black-whiskered Vireo; Bien te veo.—This vireo and the preceding were very common at the Cape. The Black-whiskered is the larger of the two, and, as in the Bahamas where I had the occasion to observe it (1953), I found that it feeds, sings, and very probably (though I did not find any nests) nests higher in the trees than the smaller species. The situation in Cuba is the exact parallel of that in the Bahamas where the Cuban Vireo is replaced by the closely related Thick-billed Vireo (V. crassirostris).

Teretistris fernandinae. Yellow-headed Warbler; Bijirita de Vuelta-abajo.—Common at the Cape, seen singly and in small parties. One foraging party composed of five or six of these warblers and two Cuban Bullfinches (*Melopyrrha*) was observed. Birds in the tropics traveling in mixed hunting parties undoubtedly derive benefit from such associations, but it scemed unusual to find a warbler associated with the Bullfinch, and I followed the party for a while and found that the individuals of the two species keep together by means of short sibilant calls. I found later that this association was not unusual. In the mixed woods above Viñales I came across several such parties, but in their case the Bullfinches were more numerous than the warblers. One of these foraging parties included a third species, namely a pair of Cabreros (*Spindalis*).

Mr. William Partridge has since called my attention to a paper by Neunteufel (1953), in which Neunteufel reports that on many occasions he has observed mixed hunting parties of insectivorous and of fruit- or seed-eating birds in the forests of Argentina (Misiones) and Paraguay. In several instances Neunteufel was able to observe the formation of these parties, and reports that the insectivorous birds were first attracted to the Charles Vaurie

trees by the disturbance caused to flying insects by the fruit- or seed-eating birds, and, once attracted, follow the latter from tree to tree.

Cyanerpes cyaneus. Blue Honey-creeper; Azulito.—One individual. Dr. Moreno told me that this species (which according to Bond is more numerous in eastern Cuba) seems to be extending its range westward.

Spindalis zena. Stripe-headed Tanager; Cabrero.—I saw only one pair at the Cape, but it is undoubtedly more common than this would indicate, and other individuals probably escaped my attention.

Melopyrrha nigra. Cuban Bullfinch, Negrito.-Very common.

MIGRANTS, CAGE BIRDS, AND BIRD-CATCHERS

Zayas, who has visited the Cape during the spring migration, tells me that at this time the forest is alive with great numbers of birds, and that their numbers build up to recurring peaks, but he did not observe in what direction the birds take off. As the Cape is only 100 miles from Yucatán, it is possible they arrive from there and then, after resting, fly north across the Gulf or to Florida. It is also possible that the migrants may follow the Antilles and then fly north, or some perhaps cross to Yucatán. The Cape would seem to be an excellent location to study migration.

Cubans, like most people of Hispanic ancestry, are fond of pets and they usually care for them well. The Cuban Parrot is kept often in or out of a cage and makes a charming pet. This bird, however, is also still shot for food in some remote regions and, we were told, offered for sale as game at the price of a dollar a brace. Among native birds those most popular are first the Bullfinch, and then the two Grassquits or Tomeguines (Tiaris olivacea and T. canora), the latter the more popular of the two, as the male is the more striking. This summer, the asking price in the countryside for one Bullfinch, or a pair of either Grassquits, was one dollar, a small cage included. Other birds that I have seen in cages are the Cuban Trogon, the Red-legged Thrush, the Blue Honeycreeper, the Stripe-headed Tanager, and among migrants, the following warblers: Black-throated Blue (Dendroica caerulescens), Black-throated Green (D. virens), Yellow-throat (Geothlypis trichas), and the American Redstart (Setophaga ruticilla). The Painted Bunting (Passerina ciris) is especially popular. I have even seen caged House Sparrows, and among the non-passerines, and perfectly at liberty, the West Indian Tree Duck (Dendrocygna arborea) and the Sparrow Hawk. Around Viñales I have heard that in former years Sandhill Cranes (Grus canadensis) were kept as pets and in 1941 I saw one of these near Havana, tied by a small rope by the leg. The other leg had been broken and crudely splinted but the bird was able to limp on it. Though these were not pets, properly speaking, Limpkins (Aramus guarauna) frequented the kitchen steps at Soledad.

The most prized of all cage birds is, however, the Solitaire or Ruiseñor (Myadestes elisabeth). It is a very plain, unobtrusive species, but it is prized

for its lovely, flutelike song; it does rather well in captivity. We were asked 10 dollars for one individual in Havana. My introduction to Cuban birds came through this bird when in 1939 I spent a month in Viñales and on the first day met the local bird catcher whom I then paid to take me on his rounds. He was interested primarily, if not exclusively, in the Ruiseñor, and the most that I have seen him capture in one day was seven. Usually he caught only two or three and sometimes none. His price, wholesale, was two dollars each and sometimes, when he would keep a bird and train it, five dollars. His manner of catching these birds is of interest. His equipment consisted of two or three bamboo poles of different thickness which could be fitted into one another for the desired length and a number of very thin slivers of bamboo, about one-eighth of an inch wide and a foot long. These were kept in a quiver made of a section of bamboo that dangled from his belt; they were immersed in a viscid substance obtained from the latex of a wild fig tree, and then thickened over a fire with the addition of wood ashes. When a bird was seen, one of these slivers would be placed very loosely at the top of his poles; the bird was then approached and the sliver dropped quickly on its back. The bird would take off in alarm, but was not able to shake off the sliver that would stick to its back as well as to the wings, and he would flutter down to be caught. With the fingers the sticky substance was then rubbed off just as easily and cleanly as rubber cement from paper. Tying two of these slivers in the form of a cross, he caught easily for me birds as large and as strong as the woodpeckers, the trogon, and the Zorzal. All birds caught for me were studied in the hand, sketched, and released the next day. Bird catchers do not seem to threaten the Ruiseñor population seriously. In the limestone country the bird lives on the high cliffs (mogotes), many parts of which are inaccessible. In 1956 they seemed to be about as common, judging by the amount of song, as they were in 1939 and the bird catcher has now become a sanitation inspector. His skill and methods probably are a lost art.

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