ALEXANDER SKUTCH

Montezuma Oropéndola

The traveler in the Central American tropics cannot fail to notice the colonies of oropéndolas, their skillfully woven bags swinging like exaggerated oriole nests from the branch tips of the ceiba trees. The striking males, as large as crows, are deep chestnut shading into black on the chest and head; their outer tail feathers flash canary yellow. The summer of 1955 was a good season for these large icterids (blackbirds) on the Caribbean slope of southern Mexico where they do not seem to nest every year. I saw my first colony in a royal palm not far from the roadside. Later in a tall ceiba we watched a classic colony, forty nests suspended in an almost perfect circle around the perimeter of the tree. I spent an hour photographing the displaying males that swung upside down to the accompaniment of much wing flapping and loud gurgling noises.

They made a beautiful picture in the late afternoon light (it was five o'clock). The next morning, before nine, when we returned along the same road I sensed that something was missing; a mile or two later I had my delayed take—where was the ceiba tree? We went back and discovered that it had been chopped down. The big baglike nests lay sprawled on the ground and there were no signs of life. The big, wonderful birds, their colony ravaged, had fled.

In recent years a flood of American ornithologists has invaded Mexico; a few have investigated the other Central American countries. Most of them have been either collectors of specimens or collectors of lists. A few dedicated men like Irby Davis and George Sutton have inquired into the ways of the living birds. Alexander Skutch has gone one step further. Putting down his roots in Central America he has attempted to do for this virgin ground what Audubon did (in words, not pictures) for North America.

My most detailed study of the nesting habits of the oropéndolas was made in the Lancetilla Valley near the Caribbean coast of Honduras. It was late in April, 1930, when I returned to this narrow valley in the foothills and found the oropéndolas well advanced in their nesting in the same tree where they had reared their young the preceding year; for they flock each nesting season to the favored tree, as sea birds congregate from afar to lay their eggs on the same barren islet where they have nested for countless years. The tall, light-barked nest tree towered above an almost impenetrable thicket of low bushes and tangled vines which had taken possession of an abandoned banana grove. Here in May the large-leafed *Cornutia* lifted its great pyramids of lilac flowers. On one side of the narrow strip of thicket ran a well worn path that led to the natives' manacca shacks near the head of the valley, and on the other, beyond a little, grass-choked rivulet, a hillside pasture rose steeply to the west. Its slope offered the best point of vantage from which to view the tree, whose upper boughs were already laden with three-score pendant nests, clustered like great, gourd-like fruits at the extremities of the twigs. One unfamiliar with the habits of tropical birds would hardly have expected to see a big, chestnut-colored bird with a bright yellow tail emerge suddenly from near the stalk of the seeming fruit and fly with measured wing beats toward the steep, forest-covered mountains.

In these nests the incubation of the two white eggs was still in progress, or the young had already hatched and were clamoring to be fed. But a group of twenty-one birds, too eager to build close together, had crowded their twenty-one great nests among the twigs of one slender living bough. Things had apparently gone well with them until many had finished their nests and begun to incubate, when the branch, overladen by its heavy burden, snapped off at a point where it was two inches thick and came crashing down to the brink of the stream. This had happened a week or so before I arrived on the scene; and I found the foliage of the fallen branch already withered and the nests discolored by the dampness. Examination of the contents of these nests furnished no evidence that either parents or young had lost their lives in the crash. This accident gave me an opportunity to study and measure

the otherwise inaccessible structures and to watch the birds as they set about to build new nests.

The hens alone undertook the construction of the nests. Throughout the day they worked with tireless industry, although, like most birds, they built most actively in the early morning. The materials employed in weaving were chiefly long, pliant fibers ripped from beneath the midribs of banana leaves; slender green vines with foliage still attached and long, narrow strips of palm leaves were also used. The banana fibers were obtained in a small plantation across the path from the nest tree. Here the females went to gather them in small parties, usually accompanied by a male. I tried several times to watch the birds at this work; but the loud *cack* of alarm of the vigilant male, who stood sentry in a coconut palm or in some other commanding position, sent them hurrying away before I could see as much of the process of stripping the fibers as I desired. Still, through perseverance I discovered how this was done. Standing on the massive midrib of one of the huge leaves, the female, taking advantage of one of the transverse tears made by the wind in the broad blade, bent down and nicked the smooth lower surface of the midrib with her sharp bill, then pulled off a thin strand, sometimes as much as two feet long, from the fibrous outer layer. Then she doubled her harvest in her bill and returned to the nest, often with one end of the fiber streaming far behind her as she flew. The green midribs of the banana leaves were marked with long, brown streaks where the fibers had been pulled out, and many loose ends of fibers hung down beneath them.

The social urge of the oropéndolas was so strong that they crowded the new nests they were building in two compact groups close together on the same side of the tree, although an entire half of the spreading crown was left unoccupied. They had learned little from their recent calamity. The nests were sometimes attached to a slender, unbranched twig, but more frequently to a crotch, and sometimes to three branchlets which arose close together near the end of a bough. The twigs used for attachment had about the thickness of a lead pencil. They were always at the outside of the tree, never among the branches in the interior of the crown. Thus the nests were more easily reached by the oropéndolas and at the same time were less accessible to any climbing animal.

The first step in nest building was the formation of the anchorage, which was accomplished by wrapping many fibers around the arms of

the crotch, or around the single twig if this had been chosen for the support. The length of twig wrapped varied from eight to sixteen inches. The oropéndolas worked just as a man would if permitted to use only one hand in such a task, pushing the fibers under the twig and pulling them over, intertwining and knotting them carefully. The second step consisted in the formation of a loop, which was the real starting point of the pouch. As the mass of fibers encircling the arms of the crotch became thicker, the bird stretched strands across the space between them. When this weft had become sufficiently strong, on returning to work at her nest the female rested on these fibers instead of grasping the twigs themselves with her feet. Thus the strands were gradually forced downward, and as more fibers were stretched from arm to arm a pocket rather than a loop was formed. Then the bird gradually pushed apart the material in the center of the pocket and converted it into a sort of loop, which would later serve as the entrance to her nest.

The construction of the nests did not proceed without frequent discord on the part of the laboring hens. The most serious of these arose over the choice of the nest sites. Two birds often began their nests so close together that they were in each other's way as they worked, and they paused to express their annoyance in loud, high-pitched, irritated voices, like children who interfere with each other at their play. Sometimes completely losing temper, each menaced the other with open bill. Then, meeting face to face in the air, they went fluttering downward until their proximity to the foliage below warned them that it was time to cease their dispute; then they separated and flew up to continue their weaving side by side.

But what surprised me most in these generally orderly, industrious birds was the frequency with which they stole building material from their neighbors. A bird who was weaving could hardly resist the temptation to steal a fiber which hung loosely from the unfinished nest of another and incorporate it into her own. Sometimes, when the upper end of such a fiber was attached more firmly than she reckoned, the would-be thief, grasping it in her bill, hung with half-opened wings beneath the nest until the coveted strand gave way, or until the owner returned to drive her off. Sometimes an oropéndola discovered that the fiber she desired to take from a certain nest was too firmly attached to be torn away and then went straightway to another to attempt robbery there. In the end, I believe that this habit of thievery must be of a certain benefit to the colony, since it discourages careless construction. It

is not easy to pull out a fiber which has been well woven into the fabric of the pouch. Those birds which build most carefully and leave fewest loose ends are not often molested by their pilfering neighbors, and they finish the stronger nests.

The female oropéndolas outnumbered the bigger males by several to one. At the nest tree the males gave no indication of being mated to particular hens or groups of hens; they were ignored by the latter and mostly ignored them. While the hens were building, the males accompanied them on expeditions for foraging or collecting fibers, and at other times they strutted around on the branches of the nest tree with heads held high and pompous gait. Although they were idle, they never quarreled among themselves. The only disputes in the community were those in which the hens engaged over nest sites or building material. Sometimes one male dashed at another; but the latter usually retreated at once and thereby avoided a fight, since the pursuer was always quick to forget whatever cause of enmity he might have had.

At intervals the male oropéndolas delivered their far-carrying calls. Bowing profoundly, until the raised tail stood directly above the inverted head, lifting the spread wings above the back and fluffing all the body feathers, they uttered, or seemed rather to eject with heart-rending effort, an indescribable liquid gurgle. Heard from afar there is no sound, save possibly the ventriloquial call of the Short-billed Pigeon or the melodious wail of the Great Tinamou, which is to me more expressive of the wonder of the tropical lowlands; but close at hand the effect is marred by screeching overtones, as though the machinery which produces this inimitable song was badly in need of lubrication. The male oropéndolas did not worry the hens while they were building in the way the male Boat-tailed Grackles did; and their bows and gurgles were not addressed to individual hens so much as to the world at large.

The males were the watchmen of the flock. At the approach of danger, real or fancied, and not infrequently when there was no evident cause of alarm, they uttered a sharp, harsh *cack* which sometimes sent the whole flock dashing headlong into the nearest sheltering thicket; but at other times this was ignored by most of the community. The approach of a man was generally greeted by a few such *cacks* of alarm; but if the colony had not been persecuted, few or none of the building hens heeded the warning; and thenceforth the man might stand quietly in full view and watch all the activities of the colony without causing the least unrest. One or more male oropéndolas usually accompanied each

party which left the nest tree to forage or procure building materials, and it was extremely difficult to elude the keen eyes of these sentries. The birds were as shy away from the nest tree as they were bold and confident among its boughs; and when they were encountered afield the male's shout of alarm invariably sent them into instantaneous retreat.

Such was the patient application of the hen oropéndolas that their great hanging pouches, which measured from two to four feet in length and from seven to nine inches in diameter near the bottom, were completed in an average time of ten days. One bird, who seemed to be in a particular hurry, finished her nest in only seven or eight days, but hers was considerably shorter than the others. The hen who had so much trouble in starting her loop on the unbranched twig finished last of all and took seventeen days in her work; while number 22, who was so greatly harassed by her thieving neighbors, required fifteen days to bring hers to completion. Most of the weavers took from nine to eleven days.

After the basket work was finished, the hens absented themselves for a day or two, during which courtship and mating probably took place off in the forest. Then they returned and labored assiduously for from three to six days longer, plucking dying or dead leaves from trees growing at a distance; tearing them between foot and bill into pieces an inch or two in length, and carrying them into the pouch. These formed a thick but loose and yielding litter in which the eggs rested and which probably served to prevent their rolling together and breaking when a strong wind rocked the swinging nest. Sometimes at first a bird brought fibers and leaves alternately, as though she had started to line the nest before she had quite finished the weaving. Even during the course of incubation, or while the nest contained young, a hen occasionally took pieces of leaf into it, or more rarely a fiber.

After the completion of the new nests the colony contained a total of 88, but not all were occupied.

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