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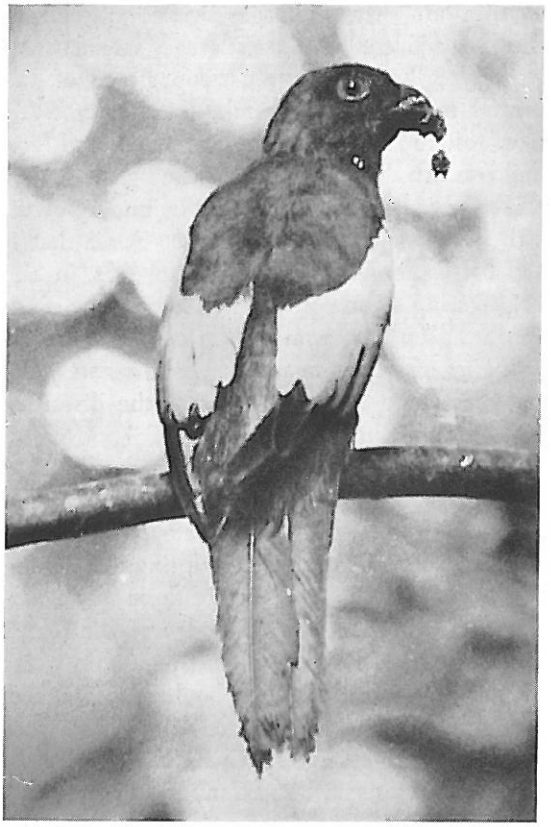


The Elusive Massena Trogon

By ALEXANDER F. SKUTCH

San Isidro del General, Costa Rica

A very rare picture of an adult Massena Trogon (at left, and below). It is carrying insects to the young in its nest nearby.
Photos by Alfred O. Gross

ON MY FIRST LONG VISIT to Central America, I saw just enough of the trogons to give them a unique place in my esteem. A family of birds so lovely, so retiring, with habits so shrouded in mystery, became for me the type and symbol of the marvelous bird-life of tropical America, far richer and more brilliant than that of any northern land. The males are clad in glittering, iridescent colors: green, golden-green, metallic violet or blue on the upper plumage, with bright red, orange or yellow on the under parts. The duller females are brown, gray or slate, with the yellow or red of the abdomen often less extensive and brilliant than on the males. Trogons are about as big as pigeons and doves but have a distinctive manner of perching, holding themselves upright with their tails pointing almost straight downward. Their bills are short and stout. Their flight is strongly undulant, like that of many woodpeckers. The calls of trogons are full and mellow, or more rarely loud and raucous, too simple in form to be called songs except in a technical sense. With that dignified, upright carriage, elegant attire, gentle ways and usually restrained voices, the trogons are the perfect gentlemen of the tropical American bird-world, as the toucans are its buffoons and the woodpeckers its industrious artisans.

My first half-year in Central America was passed amid the banana plantations and winding lagoons of the Almirante Bay region of Panamá, where I dwelt too far from the forest to meet many trogons. But the following year I lived in the Lancetilla Valley of northern Honduras.

Within an easy walk of my lodging began the magnificent rain-forest that spread with scarcely a break over the steep slopes of the coastal mountains. The tall, slender, crowded trees rose to heights of well over a hundred feet, and beneath their lofty canopy the light was dim and subdued even at mid-day. The undergrowth, rich in small palms, was rarely so dense that it seriously retarded a man's advance as in the neighboring second-growth thickets, where every forward step was won at the cost of vigorous swinging of a sharp machete. In this stately forest I began to learn the ways of the distinctly woodland birds.

As in all localities where a man dwells for a while, I soon discovered favorite spots amid the surrounding wilderness, too vast ever to be thoroughly explored in the detailed, time-consuming manner of a naturalist. One of these was a narrow dell, not far within the edge of the forest, through which a stream of clear mountain water leapt and tumbled down a boulder-strewn bed, pausing here and there in a fern-rimmed pool where hummingbirds dipped for their baths. In this enchanting spot I found my first baffling nest of the Royal Flycatcher, a yard-long mass of tangled vegetable fibers that one never would have taken for a bird's nest. This first exciting discovery called for repeated visits, which in turn, as so often happens, led to other momentous disclosures. One morning, when I went to visit the flycatcher's nest hanging above the mountain torrent, a male Massena Trogon, resting quietly on a bough above the stream, calmly viewed me and my companion as we clambered laboriously over the slippery rocks. One of the bigger trogons, he was a stocky bird clad mostly in glittering green, except his bright red breast and belly and his wing coverts minutely pencilled with black and white. His short, thick bill was red. I thought that he needed only a crest of upstanding feathers and a long, curving train to rival in splendor his relative the Quetzal, perhaps the most gorgeous bird of the Western Hemisphere. But at that time I knew the Quetzal, a species confined to

The author's first Trogon nest was discovered by accident in a termitary attached to the trunk of a forest tree. There were three large eggs, in tints of palest blue, in the cavity.
Photo by Alexander F. Skutch

the highlands, only from pictures and stuffed specimens, which never give an adequate conception of this superb creature in all its vital glory.

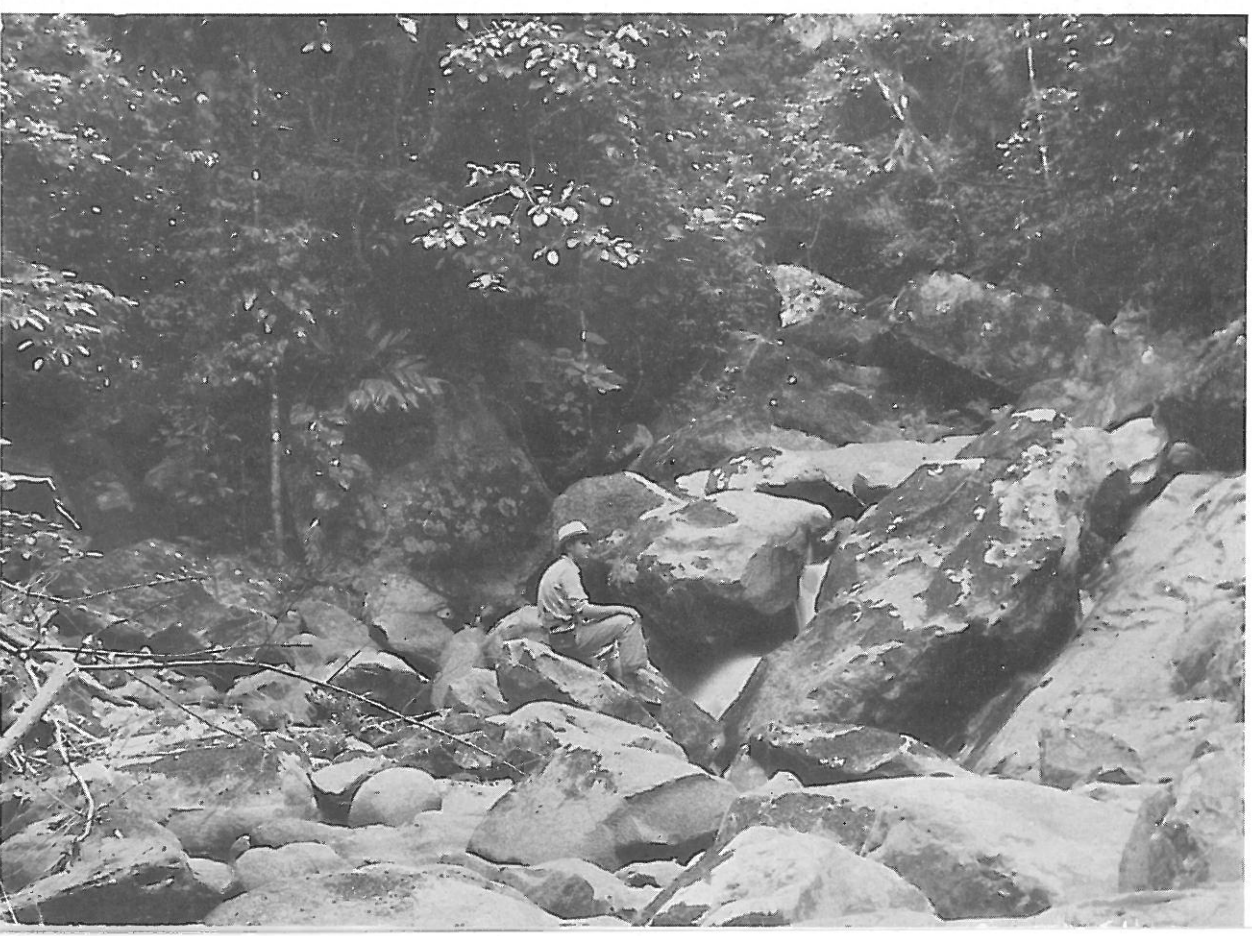
The following day I noticed a hole in the trunk of a small tree growing beside the stream, close by the point where I saw the trogon. Picking up a stone, I tapped against the trunk. My pulse leapt up when the brilliant bird flew out, not from the hole on which I had my eye, but from a big, black termites' nest attached to the other side of the trunk. It was my first trogon's nest, in an unexpected situation.

The thick, slippery trunk, encumbered with vines and air-plants, repulsed my effort to scale it and see what the nest contained. In the afternoon I returned with a helper, bringing a machete and some cord. We cut two long poles which we notched, then tied short lengths of branches between them, and soon had a ladder that would reach the nest, fifteen feet up. The trogon had flown out as we worked. Eagerly I climbed up and stuck my hand into the blackness of the hole that opened in the side of the termitary, for even with an electric torch it was impossible to see the bottom of the nest cavity. A short tunnel led obliquely upward into the top of a roomy chamber. On the bottom of this, reposing merely on some hard, black chips of the material of which the termitary was made, my fingers encountered three large eggs. Carefully I lifted them out, one by one, and found them of the palest tint of blue, verging on whiteness. They were soiled with a gummy substance to which many minute particles of the birds' feathers stuck closely, giving them a mottled aspect. A few soft-bodied, white soldier and worker termites crawled over my hand, evidence that the thick-billed birds had carved their nest chamber into the heart of an occupied termitary, almost as hard as wood, and defended by a legion of soldiers ejecting a white, viscous substance from their syringe-shaped heads. However effective this gum may be in embarrassing the movements of ants and other insect enemies, it had proved to be an inadequate defense against the birds.

With affectionate care I replaced the eggs, elated by the prospect of following, day by day, the development of the nestlings that I hoped

Beside this stream in the rain forest of Honduras the Massena Trogon made its home. Here hummingbirds came to bathe in the little pools.

Photo by Alexander F. Skutch



would hatch from them, until they grew feathers and flew off into the forest. Each time that I visited the dell, I tapped the trunk to make the incubating bird fly out of the termitary, and thereby learned something of the division of labor between the two mates. Between eight to half-past eight in the morning and four to half-past four in the afternoon, it was invariably the green male who emerged. Earlier or later in the day it was his slate-gray, red-bellied mate, who apparently spent the night on the eggs. Usually the bird that I had disturbed perched quietly on a bough not far off, slowly raising and depressing its tail and uttering not a sound; for the trogon, despite the dash of its upward swoop to pluck a berry from a twig while it poises momentarily on beating wings, is one of the most phlegmatic of birds. One noon, however, the male flew to a branch above the torrent and called repeatedly, *wuk wuk wuk wuk wuk,* the notes following each other rapidly with a slight increase in pitch. This call was in no sense melodious. I thought it rather subdued, in keeping with the dignified, retiring conduct of its author; but as I toiled up the mountainside between the thorny palm trees I discovered that it had great carrying power.

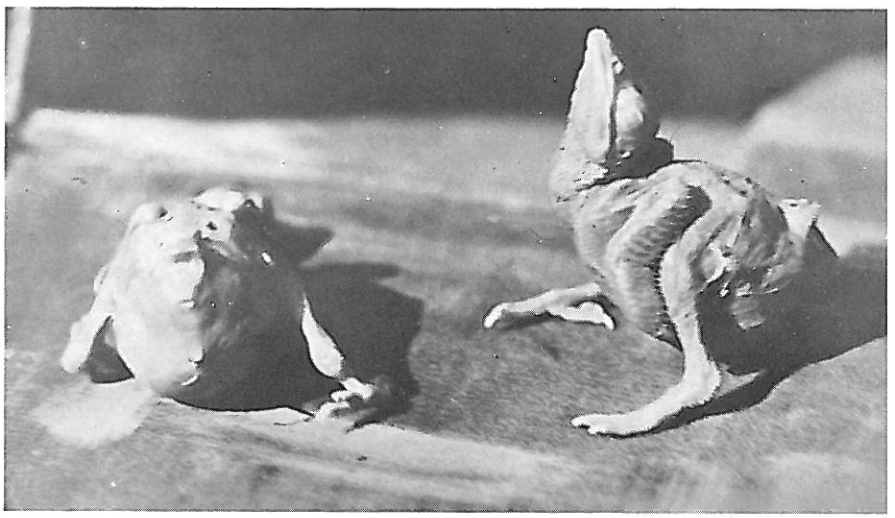
After I had learned the hour when I might expect it to occur, I waited to witness one member of the pair relieve the other of the duty of incubation. Late one afternoon I concealed myself behind a rocky ledge, above which I had piled some leafy boughs through which I could peer. I had not long to wait, for at very nearly the expected hour the female trogon dropped down from the high trees and came to rest on a bough above the stream. Then she flew to a perch directly in front of the doorway of the nest. The male stuck forth his head, and a few moments later flew quietly out and away. A minute later his mate entered. The whole exchange of duty was effected without the utterance of a note audible to me, or any sign of greeting between the two partners.

Early the following morning I retired behind my ledge of rock beside the rushing current, where, tormented by a swarm of merciless mosquitoes, I waited quietly for the male trogon to come and relieve his mate of her long night's brooding. The sweet, pure notes of a Gray's Thrush, sounding even more ethereal in the dim recesses of the forest than in the cleared lands where this songster is more frequently heard, mingled with the murmur of falling waters and the wild piping of the Royal Flycatchers foraging across the stream. An hour dragged by and still no trogon appeared, although it was past the time when I had learned to expect him. Weary at last of feeding insatiable blood-suckers while I fruitlessly watched, I was just slipping forth from my retreat, when he appeared as though from nowhere and took his usual perch above the stream. I quietly slid back to my place of concealment, apparently unnoticed by the bird, who remained sitting very upright, slowly raising and lowering his tail. He flew to a second twig, then to a perch directly in front of the entrance. When his mate failed to show her head, he called in his lowest voice. Although his notes were inaudible to me above the laughter of the stream, I clearly saw the vibrations of his throat. Still no response! Flying now to the doorway, he poised on wing before it for a moment, then perched and called again. At last he entered. Seven minutes later a bird emerged from the termitary and flew swiftly away through the forest beyond the stream. In the deep shade its plumage looked so dull that I felt sure it was the female. Could two birds find room in the chamber, and was this the mate who was so reluctant to come forth? Advancing now to the tree, I tapped the trunk with a stone — but no trogon obeyed my request to come out.

I climbed the ladder to learn the meaning of this puzzling behavior. On its topmost round lay some downy gray feathers, tipped with red. There were more of these on the broad surface of a heart-shaped aroid leaf close below it. I sensed tragedy. Had I not just seen the trogon fly out, I should not at once have stuck my hand into the dark cavity; for I had encountered snakes and wasps and fiercely stinging ants in the interior of abandoned birds' nests often enough to make me cautious. I well understood the male trogon's hesitancy in entering; for the snake or sharp-toothed rodent, or whatever else had raided the nest during the night, might still be lurking within.

On the bottom of the deserted chamber my fingers encountered only a few fragments of eggshell and some seeds regurgitated by the incubat-

These fruits, with bright red shells and white and pulpy interior, are favorites of the Massena Trogon.
Photo by Alfred O. Gross



Massena Trogons four days old. They were hatched in a termitary on Barro Colorado, in the Canal Zone.
Photo by Alfred O. Gross

found of some special use to the bird. But to the famous English bird artist the trogons were merely glittering skins; he knew little about their habits, and not a great deal had been discovered since he wrote. The excavation of the nest chamber in a hard termitary is the use which Gould conjectured long ago.

I made my last visit to the mountain torrent early in November, just after the rainy season had reached its climax with a tremendous downpour of twenty-two inches in two days. The current tumbled down its rocky bed with a thunderous roar, but the turbidity that marked the crest of the flood had gone and its forest-filtered water was again crystal clear. The aspect of the dark surrounding forest had altered little since June, when I found the trogons' nest; there were still scarcely any bright flowers to relieve the greens of the multiform foliage. On the side of the termitary where the entrance to the nest had been, a circular patch of dark brown contrasted with the dull black of the rest of the surface. I sought the ladder that I might climb up and examine the changes that had occurred, but the dampness had long since rotted the cords that bound it together and the pieces had been carried away by the flood. With the midrib cut from a huge palm leaf, I prodded that black mass until a swarm of white termites poured out, proving that their nest was well populated. They had regained full possession of their citadel and repaired the damages that the trogons had wrought.

ing birds, mixed with the debris of the termitary that covered the floor. It was beyond doubt the male whom I had seen steal away so quietly through the woodland. Some mishap had befallen his mate and her eggs during the long night shift, and an empty nest remained to greet him on his return in the morning. As I walked sadly back to the plantation, I should have given much for some intimation of his feelings as he flew off alone into the forest.

For weeks afterward, as I wandered through the mountain forest, I tapped the trunk of every tree which bore a termites' nest; but never from another did a bird dart forth. More than fifty years earlier, in his magnificently illustrated "Monograph of the Trogons," John Gould had expressed the conjecture that the remarkably heavy bill of Prince Massena's Trogon would be

The tragedy of the trogons was but an episode in the life of the termitary.

As I look back after the lapse of many years, it is easy to see the mistakes which as a novice in the study of tropical birds I made at my first trogon's nest. I should have watched it throughout the day from a carefully-sewn blind of substantial cloth rather than at selected intervals from behind leafage that only partially concealed me. But since these trogons were less suspicious of man than many other birds, this was not a serious mistake. A graver blunder was leaving the heavy ladder against the nest tree between visits, instead of carrying it a good way off after each inspection of the nest. In tropical rain-forest, the predation upon birds' nests is far heavier than is usual in northern fields and woodlands, so that in even the most cunningly concealed of these tropical nests the probability of disaster is greater than that of success. Moreover, it has sometimes seemed to me that any interference by man, even a light touch which might leave a telltale human scent, decreases the nest's chances of escaping predatory creatures. But this must always remain a mere conjecture, for it is obviously impossible to compare the success of the nests that we find and examine with those which remain undiscovered.

In later years, I found in various parts of Central America the nests of eight other kinds of trogons, including the glorious Quetzal. Some were in decaying trunks; some, like that of the Massena Trogon, in hard black termitaries; and some in big wasps' nests made of silver-gray carton. In form the cavities made by the trogons are of several types. Those made in decaying wood by Mexican, Collared and Black-throated Trogons are open niches, which leave much of the incubating bird visible from the front. Those carved into wood by White-tailed Trogons are well-enclosed chambers with an upwardly directed entrance-tube, like that of the Massena Trogon. The Quetzal's hole is a deep, roughly cylindrical cavity with a round doorway at the top, like a big woodpecker's nest. The well-enclosed chambers of the Gartered Trogon are made in hives still occupied by the wasps when the birds claim them, but most of the winged defenders are caught in the air before the birds begin to carve out their nest chamber. Doubtless they feast upon the tender larvae and pupae of the wasps while engaged in this task. With Gartered, White-tailed and Citreoline Trogons I have watched male and female take turns at the work of carving, and doubtless this is the rule in the family. Likewise the two partners share the work of incubating the two or three eggs, even the resplendent male Quetzal sitting in the nest for long periods every day. By night, the female of all the species studied takes charge of the eggs and nestlings. Both parents feed the young, but with some families I have known the male to take sole charge of them during their last days in the nursery.

Even where trogons seem to be abundant, their population is sparse as compared to that of many kinds of birds, and their nests are not easily found. On the Costa Rican farm where I have dwelt for a dozen years, Massena Trogons are not uncommon in the woodland, yet I have seen only one completed nest. This, my second nest of the species, contrasted strongly with that beside the mountain torrent in Honduras. Instead of in a termitary, it was eight feet up in a massive, charred, decaying stump; instead of in the dim woodland, it was in the shady pasture behind my house, but only twenty yards from the forest's edge. But its form was the same as that of my first nest in the termitary, a chamber carved deep in the soft wood, contrasting sharply with the open niches of the Black-throated Trogon that I sometimes found in the neighboring forest. The nests of a single species of trogon seem to be more constant in the shape of the cavity than in the material in which they are carved. There were three eggs, as in the memorable first nest, and they fared no better than that earlier set. Before they hatched, some hungry animal tore away the wood to enlarge the entrance to the chamber and carried them off. After nearly a quarter of a century, I have still to see nestlings of the Massena Trogon.

Scientific Names of Species Mentioned, in the Order of Their Occurrence

Royal Flycatcher – *Onychorhynchus mexicanus*
Massena Trogon – *Trogon massena*
Quetzal – *Pharomachrus mocinno*
Mexican Trogon – *Trogon mexicanus*
Collared Trogon – *Trogon collaris*
Black-throated Trogon – *Trogon rufus*
White-tailed Trogon – *Trogon strigilatus*
Gartered Trogon – *Trogon violaceus*
Citreoline Trogon – *Trogon citreolus*