

LIFE HISTORY NOTES ON THE ORIOLE-BLACKBIRD
(*GYMNOMYSTAX MEXICANUS*) IN VENEZUELA

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Although it resembles the orioles (*Icterus* spp.) in its handsome yellow and black plumage, by its habits the Oriole-Blackbird (*Gymnomystax mexicanus*) reveals closer affinity to the blackbirds and grackles (*Quiscalus*, *Cassidix*, etc.), as will become evident in the following account. This large icterid, nearly a foot (30 cm) in length, is bright yellow on the head, neck, shoulders, and all the under plumage, deep black on the back, rump, tail, and wings, which have a patch of yellow on the lesser coverts. Its brown eye is surrounded by black bare skin. The sexes are difficult to distinguish.

The Oriole-Blackbird is widely distributed in northern South America, from Perú and northern Brazil to French Guiana, Guyana, Venezuela, and eastern Colombia. Its altitudinal range extends from sea level up to about 950 m (Phelps & Phelps, Jr., 1963 : 349). Avoiding the forests, it inhabits cultivated lands, pastures, and savannas with scattered trees. It was moderately abundant at "La Araguata," a large cattle farm near Pirapira in the state of Carabobo, Venezuela, where I observed it from March to July, 1966, and found a single nest.

Oriole-Blackbirds fly in pairs or small, open flocks, spread out over a broad front rather than in a column or compact mass. The largest group that I saw contained about 17 birds; but Cherrie (1916 : 208) mentioned great flocks that in April, 1905, were to be seen every morning and evening feeding in a swampy area near Ciudad Bolívar, Venezuela. Although the *maiceros*, as these birds are called in Venezuela, forage much on the ground, they prefer to perch on the topmost boughs of tall trees, where they would easily escape notice if they did not call attention to themselves by their scratchy notes. After resting here a while, they suddenly take wing and continue to fly high in the air until they vanish in the distance. They roost in large parties, like other blackbirds and grackles. At "La Araguata" I frequently saw small groups of Oriole-Blackbirds flying southward over the pastures in the late afternoon, and returning northward in the morning. I suspected

that they roosted with Giant Cowbirds (*Scaphidura oryzivorus*), which in larger bands travelled in the same direction at the same times of day, but I was unable to follow the birds to their remote destination. Paul Schwartz told me that he found hundreds of Oriole-Blackbirds roosting together in swampy woods.

FOOD

Oriole-Blackbirds forage chiefly on the ground, in open fields and pastures, where they walk or run with alternately advancing feet and hop over obstructions. In the wet season, when the herbage is lush, they vanish beneath it, to fly up suddenly, as one approaches them, with their golden plumage wet and bedraggled. Their food consists largely of insects, caterpillars, worms, small frogs, and such other diminutive creatures as they find on the ground or amid the grass. They vary their diet with fruits which they pluck from trees. In June, when a tall *Cordia* (resembling *C. bicolor* of Costa Rica), very abundant at "La Araguata," ripened multitudes of small, yellow, sweetish-astringent berries, the Oriole-Blackbirds fed freely on them. Perching beside a cluster of these fruits, the birds gathered them one at a time, pressed the pulp from the skin, and dropped the latter. After feasting for a few minutes on the fruits, they would fly down to forage again on the ground.

The name "*maicero*," or "*tordo maicero*," applied to this bird in Venezuela, refers to its habit of pillaging cornfields. Since the maize had not yet formed ears when I left the country, I did not have an opportunity to observe this.

VOICE

One has only to hear the screechy or scratchy notes of the Oriole-Blackbird to suspect that it is more closely related to the dusky grackles and blackbirds than to the melodious orioles which it superficially resembles. Its long-drawn, nasal screech, ascending sharply toward the end, sounds much like the squeaking of a rusty gate and seems unworthy of a bird so splendidly clad in black and gold. A frequent utterance, which may be considered the bird's song, sounds like "*chaa chaa chrick chaaa*," with the "*chricks*" clearer in tone than the nasal "*chaa*" and sharply rising in pitch. This sequence of notes is usually delivered while the bird perches in a treetop. When taking wing, it often calls "*chricks chaa*," but other combinations of these notes may be used. A building female sometimes voiced a sharp single "*cluck*" or a longer "*tuc-titit*" as she flew down to the ground for more material. Parents fearful for the safety of their nestlings delivered sharp "*chip's*" and harsh, rasping notes while they circled around a climber. I noticed little difference between the songs and calls of the two sexes, except that the male's songs

tended to be longer than those of his mate. A melodious warble (*melodioso gorjeo*) has been attributed to the *maicero* by Arp (1965), but I failed to hear any soft or liquid notes from a nesting pair that I watched for many hours.

A male displaying to another Oriole-Blackbird who perched near him in a tree raised his head, puffed out the feathers of his nape and back, fanned out his tail, slightly spread and drooped his wings while he emitted the usual screech. Sometimes Oriole-Blackbirds point their bills almost straight upward when they call.

NEST BUILDING

In April and May, most of the Oriole-Blackbirds that I saw at "La Araguata" perched high in trees that grew in or beside the pastures. At first they were often in trios, but as May advanced pairs became more common. Again and again I watched hopefully for them to build; but after an interval of motionless perching they abruptly left, flying so far over the surrounding hills that I did not attempt to follow. But in the middle of the morning of 5 June, after rain had become frequent, I at last found a bird building, in a yagua palm standing in the midst of a wide pasture with scattered trees. The site of the nest was 23 feet (7 m.) up, in the dense crown of the massive palm tree, between the bases of the younger feathery fronds, where it could hardly be seen from the ground.

Next morning I arrived at 0625 hours to watch the birds build, but it was nearly seven o'clock before I saw them or heard their screechy notes. While the male *maicero* perched conspicuously in the top of a neighboring, tall, dead tree, or at the very apex of a more distant leafy one, voicing from time to time his long-drawn nasal screech, the female walked over the pasture, where the new grass was sprouting, gathering pieces of dead herbage for her nest. Often she picked up, tested, and dropped a number of pieces before she found satisfactory material. Then, her black bill laden, she flew up to a frond of the palm and promptly vanished into the heart of the dense crown, where I could not see what she did. Usually she stayed out of sight for a good while before she emerged and flew down, often gliding on set wings, to gather more material from the ground. From time to time, her mate descended from his high lookout to pick up pieces of vegetation from the pasture and carry them to the nest site. He did so both while the female was present there and while she was on the ground, so that evidently he himself placed in the nest what he took to it. Once, however, he emerged from amid the palm fronds still bearing his material.

The female started to build at 0710, and during the next hour she took material to the nest 11 times, the male three times. Most of these trips were

made toward the end of the hour, while rain fell. From 0810 to 0838 the female carried material to the nest 12 times, the male only once. After this, building proceeded much more slowly. The pair were out of sight much of the time, but once I watched them forage amid the wet grass, walking or running close together while they hunted food. Soon after 0900 they flew



Nest site of the Oriole-Blackbird or Tordo Maicero. The nest was well concealed in the center of the crown of the yagua palm which the boy is climbing. Near Pirapira, Carabobo, Venezuela, July 1966.

away and remained absent so long that I left, too. In little more than two hours, the female took 30 billfuls of material to the nest, the male only five.

At 0740 o'clock on the following morning, I found the female at work. Now she was gathering what appeared to be mud or cow dung mixed with short bits of vegetation. In the next quarter-hour she carried five billfuls to the nest. Once the male came down from his high treetop and tugged at wiry stems that he could not tear loose. Then, apparently having found

an ants' nest, he went through the movements of anting — the first time that I ever saw a bird do so on the ground in the tropics, where this curious activity is nearly always carried on in trees (Skutch, 1948). Then the male ate something. Finally, he gathered a billful of dead grass blades and carried them up to the palm tree, only to fly away still holding them. Again he took his billful to the crown of the palm but failed to deposit it on the nest. Instead, he bore it to a neighboring *Cordia* tree where he and his mate went at intervals to eat the fruit.

Although I watched on subsequent mornings, I did not again see such sustained building as on 6 June. One morning at about 0930, I saw the female gather fine material from the ground to line her nest. After she had collected a generous billful, she started to pant in the bright sunshine, dropping her carefully selected load. Then she went to perch in the shade. She seemed most intolerant of heat. The last building activity that I saw was late in the morning of 14 June, when the female took a large billful of slender rachises to her nest. Thus the construction of this nest was continued for at least ten days. The work was done largely by the female, with her mate making occasional gestures of helpfulness.

While the Oriole-Blackbirds built, a pair of Sparrow Hawks (*Falco sparverius*) spent much time in the surrounding trees, but the blackbirds paid no attention to them. Once, while the female gathered material on the ground, a hawk swooped down at her, but she avoided it by jumping into a bush that was conveniently near, then calmly went on with her work. While the male blackbird was perching on a dead twig at the very top of a tall leafy tree, a Sparrow Hawk flew at him, making him duck. When the hawk again dived at him, he moved to another branch a few yards away, and the hawk alighted on that which he had left. For a while, the Oriole-Blackbird and the Sparrow Hawk rested in the same treetop.

The completed nest was a broad, shallow bowl, very loosely constructed of materials merely piled together, with no weaving or interlacing. The foundation was of long, coarse straws, mixed with smaller fragments of vegetation. The bulk of the nest was composed of the long, black, curving rachises, up to six inches long, from the compound leaves of an acacia-like tree that grew nearby. Although one morning I thought that I saw the female gather mud or cow dung for her nest, I found no such material in the structure after the young had gone; but if only a little had been brought, it might have been washed out by the heavy rains of this period.

Cherrie (1916 : 208) described a nest that he found at Caicara, Venezuela, on 8 May 1907. It had been built about 6.10 m. above the ground, amid the thickly tangled branches of a parasitic plant that grew in the top of a *chaparo* oak. The somewhat thick-walled open cup or "bowl-shaped affair" was composed of weed and grass stems loosely but neatly woven toge-

ther, and the nest cavity was lined with moderately coarse rootlets. This nest was 17 cm. in diameter by 11 cm. high, and the cavity measured 8.5 cm in diameter by 5.5 cm in depth. Neither Cherrie nor I noticed other nests in the vicinity of the single one that each of us found. Apparently the Oriole-Blackbird does not, like certain other blackbirds and grackles, breed in colonies.

It is evident that the Oriole-Blackbird's nest bears little resemblance to the long, pensile pouches or the deep, neatly woven, suspended cups made by orioles of the genus *Icterus*.

THE EGGS

Since I could not, with available materials, construct a sufficiently long ladder so light that, unaided, I could raise it to the nest, I did not learn just when the eggs were laid. On 16 July I for the first time found the female on the nest, late in the morning, suggesting that incubation had begun. Afterward I found a boy who could climb into the crown of the palm tree, by means of a long pole, and lower the eggs to me. There were three, light blue in color, marked, especially on the thicker end, with irregular blotches and speckles of black and lilac. They measured 30.1×21.0 , 30.0×20.4 , and 28.9×20.4 mm. Cherrie described the set of three eggs in the above-mentioned nest as "very pale bluish (pale Nile blue) marked chiefly about the larger end, with dots, spots and blotches, of brown varying in shade from clove-brown, the outermost markings, through burnt umber to drab, the latter underlying the darker markings." Although as broad as the eggs of my set, they were much shorter, measuring 26.5×20.5 , 26×20 , and 26.5×20 mm.

With them was a single fresh egg of the Shiny Cowbird (*Molothrus bonariensis venezuelensis*).

INCUBATION

On 21 June I watched the nest in the palm tree from 1250 until the light grew dim at 1845. Resuming my vigil at the following dawn (0610), I continued until 1213 o'clock. Only the female incubated. On 21 June she retired for the night as a shower began at 1834, and she did not leave the next morning until 0647, so that her nocturnal session lasted 12 hours and 13 minutes. On the two days I timed 10 sessions on the eggs ranging from 17 to 113 minutes in length and averaging 43.3 minutes. There were 10 recesses or absences from the eggs ranging from 8 to 35 minutes and averaging 23 minutes. During the longest session, in the late afternoon, there was a rain-storm with much wind, lasting three quarters of an hour. This session was followed by the shortest absence, returning from which the female settled

on her nest for the night. The shortest session was taken in the middle of a warm morning. This female incubated with a constancy of 65 per cent.

While the Oriole-Blackbird sat in her nest, I could at times see the top of her golden head between the bases of the palm fronds, but otherwise she was invisible to me. On leaving, she often flew to a neighboring *Cordia* tree to eat the yellow fruits, after which she might descend to forage on the ground close by her mate. Often he accompanied her as she returned to the palm tree. She had no fixed route for reaching her nest: sometimes she would alight far out on a palm frond and walk in to it, but at other times she would fly right into the crown of the tree and promptly settle on her eggs. She rarely used the same approach twice in succession.

The male was most attentive. After escorting his partner back to the nest or near it, he would often rest in a neighboring treetop, preening and from time to time singing screechily. Sometimes the female left the eggs in response to his calls. At intervals he visited the nest, either while the female was present or in her absence; but the obstructing bases of the palm fronds made it difficult for me to see just what he did there. He carried no visible food and evidently did not feed his incubating partner. In the middle of the afternoon of 21 June, he spent many minutes standing beside the nest and bending over his sitting mate, first from one side and then from another, while I vainly tried to see what he was doing. Less than an hour later, he returned. This time, peering up between his legs, I could see him making movements which could have been preening her head, or gently pecking her, perhaps to make her rise up and reveal the eggs. Next morning, he went to the nest just after his mate had left and doubtless enjoyed a satisfactory view of its contents, for this time his visit was short. Once, while the female incubated, the male foraged through the tall pasture grass in close company with a flock of Smooth-billed Anis (*Crotophaga ani*).

While incubation was in progress, from two to four Sparrow Hawks perched much in the trees nearest the palm that held the nest, but the blackbirds ignored them.

THE NESTLINGS

The nestlings hatched between 3 and 5 July. Their skin was yellowish flesh-color, and it bore sparse, but long, gray natal down of the usual passerine type. The interior of their mouth was purplish red, and at the corners were prominent whitish flanges, about 2 mm broad. While my climber was in the crown of the palm tree, lowering a nestling to me, the two parents circled so close above him, uttering sharp *chip*'s and angry, rasping sounds, that the boy became alarmed and shook the palm fronds to keep them away. I could not persuade him to remain still, as he was in no grave peril from birds so small, and see what the *maiceros* would do.

I passed the morning of 14 July watching the parents attend their three nestlings. At 0613 o'clock, the female, who had brooded through the night, left the nest and called with sharp *chip*'s from a neighboring dead tree. Two minutes later, her mate joined her there in the dim light of dawn. He flew up alone from the south, and I wondered whether he could have arrived so early from the distant roost where, apparently, many Oriole-Blackbirds slept. Soon both parents flew northward together, and at 0636 one of them brought the day's first meal to the nestlings. In successive hours, from 0613 to 1113, they were fed as follows: 5, 11, 7, 5, and 7 times, making a total of 35 meals in five hours. Both parents fed the nestlings, sometimes arriving together but more often alone. After delivering a meal, however, one would frequently wait for its mate in a neighboring tree, and after the second had given the nestlings what it had brought, they would fly off together. From the beginning, the food was carried visibly in the parents' bills rather than regurgitated. Most of the articles brought to the nestlings were unrecognizable; but I distinguished small frogs on three occasions, caterpillars, earthworms, two spiders, and a black cricket. Fairly large items were brought singly, but several small caterpillars or worms were often carried together. The parents removed the nestlings' droppings in their bills, carrying them just far enough to fall free of the crown of the palm tree when they were released.

Usually the parents' visits to the nest with food were brief, but on three occasions they remained longer, for 3, 12, and 11 minutes, apparently brooding the nestlings, now nine or ten days old.

This nest was situated on the flyway between the Oriole-Blackbirds' roost in the south and the foraging or breeding areas of a number of them farther to the north. Morning and evening, they would pass over the pasture; and sometimes, especially in the morning, they would interrupt their journey to rest briefly in the trees near the palm where the nest was hidden. Usually the parents seemed not to object to these visits, but sometimes they were mildly antagonistic toward the travellers. Thus at 0648 on 14 July, when 10 blackbirds perched for a short while near the nest, then continued northward, the resident pair did not protest. Half an hour later, two more Oriole-Blackbirds, travelling in the same direction, alighted in a dead tree near the nest, just as the female parent was about to feed the nestlings. She at once flew to the intruders from the palm tree, while the male did so from a neighboring tree. The parents "sang" with puffed-out plumage and seemed somewhat annoyed, but they did not try to chase the trespassers, who after a minute or two resumed their journey. This exceedingly mild demonstration was the strongest manifestation of territorial exclusiveness that I witnessed. While building, incubating, and feeding nestlings the parents often flew far away, as though they knew no territorial boundaries.

By 18 July the nestlings had vanished. They were at most two weeks old;

and even if they had left the nest spontaneously, they could hardly have flown far. From the hilltop where the nest was situated, I looked long and eagerly over the wide expanse of surrounding pasture for some sign of them or their parents, but in vain. Evidently the young Oriole-Blackbirds had fallen victims to the Sparrow Hawks that continued to frequent the vicinity, to a pair of Yellow-headed Caracaras (*Milvago chimachima*) nesting nearby, or to one of the larger hawks that from time to time appeared at this open site.

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SUMMARY

Widely distributed in northern South America, the Oriole-Blackbird inhabits open country with scattered trees, over which it flies in small, loose flocks. It rests in the treetops but forages chiefly on the ground, over which it walks with alternately advancing feet, gathering insects, caterpillars, worms, small frogs, and the like. It also plucks small fruits from trees. Its song is screechy or scratchy, and no melodious utterances were heard.

In early June, a pair started a nest amid the bases of the leaf-stalks of a tall yagua palm growing in open pasture. The materials were gathered from the ground, chiefly by the female, with the male helping occasionally. Building continued for at least 10 days. The nest was a loosely constructed open bowl, composed largely of the black, curving rachises of the compound leaves of an acacia-like tree, on a foundation of long, coarse straws and smaller fragments of vegetation.

The female laid three light blue eggs, marked with irregular blotches and speckles of black and lilac. She alone incubated, sitting from a quarter-hour to nearly two hours continuously and covering her eggs for 65 per cent of the daytime. Her mate was attentive, escorting her back to the nest tree, perching nearby while she incubated, and from time to time visiting the nest.

The nestlings hatched with sparse but long, gray down; and the interior of their mouths was purplish red. Both parents fed them, carrying the food visibly in their bills. Larger items, such as small frogs, were brought singly, but several worms or caterpillars were often carried together.

When trespassing Oriole-Blackbirds perched near the nest tree, the par-

ents protested mildly or not at all. This species is at most weakly territorial.

Although in its golden and black plumage the Oriole-Blackbird resembles the orioles of the genus *Icterus*, in voice, mode of foraging, and nidification it more closely resembles the blackbirds and grackles (*Quiscalus*, *Cassidix*, etc.).

RESUMEN

En la parte septentrional de América del Sur, el Tordo Maicero (*Gymnomystax mexicanus*) habita potreros, sabanas, plantaciones y otros parajes escasamente arbolados. Vuela en bandadas pequeñas, en formación abierta. Descansa en las copas de los árboles, pero para buscar comida desciende a la tierra, donde anda avanzando las pies alternativamente. Se alimenta con insectos, gusanos, lombrices, ranas pequeñas, etc., y también con frutas pequeñas que coge en los árboles. Su canto es chillón, y parece que le faltan notas dulces.

Al principio de junio, una pareja empezó a construir su nido entre las bases de las frondas de una palma alta en un repasto abierto, en el estado de Carabobo, Venezuela. Los materiales se recogieron de la tierra, principalmente por la hembra, aunque el macho ayudó un poco. El trabajo duró por lo menos 10 días. El nido era una taza abierta, de construcción floja, compuesto principalmente de los tallos de hojas compuestas, sobre un cimientito de pajas largas y gruesas.

La hembra depositó tres huevos, de un azul claro, con manchas irregulares y puntos de negro y lila. Sólo ella incubaba, quedándose en el nido desde un cuarto de hora hasta casi dos horas sin interrupción y calentando los huevos por un 65 por ciento del período diurno. El macho era atento, acompañando a la hembra cuando ella regresó a la palma que contenía el nido, posándose en un árbol cercano mientras ella incubaba, y de vez en cuando visitaba al nido.

Los pichones nacieron con unos pocos plumones largos de color gris. El interior de sus bocas era rojo morado. Los dos padres les traían comida, desde el principio cargándola visiblemente en el pico. Los artículos de mayor tamaño, como ranas pequeñas, se traían uno por uno, pero varios gusanos o lombrices se cargaban juntos.

Cuando maiceros errantes se paraban cerca de la palma que contenía el nido, los padres protestaban suavemente, o más bien ignoraban a los visitantes. Esta especie casi no defiende su territorio.

Aunque en su plumaje dorado y negro el Tordo Maicero se parece mucho a las oropéndulas del género *Icterus*, en su voz, manera de buscar comida y nidificación demuestra más afinidad a los tordos y clarineros (*Quiscalus*, *Cassidix*, etc.).

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