



A Naturalist Spies on THE SILKY-FLYCATCHER

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NEARLY THIRTY YEARS AGO, before the paved highway was extended to the 11,412-ft. summit of Irazú in Costa Rica, I was riding a horse down the southern face of the then inactive volcano when a flock of starling-sized birds flew across the road and settled in the top of an oak tree. Through my field glasses I scrutinized their slender gray forms, with high peaked crests, yellow under tail-coverts, black tails with white in the middle of the outer feathers and two projecting central feathers. Already familiar with the Gray Silky-Flycatcher of the highlands of Guatemala and Mexico, I promptly recognized these graceful birds as my first examples of the more ornate southern species, the Long-tailed Silky-Flycatcher.¹

For many years I had wished to study these little-known birds without close relations. In the high mountains of western Guatemala in the 1930s, I often saw Gray Silky-Flycatchers but searched in vain for a breeding pair. In later years, other ornithologists have found nests and eggs in Mexico, but no detailed study of its habits has been published. During many seasons in Costa Rica, I watched nesting birds at altitudes too low for silky-flycatchers; even the wild moun-

¹The genus *Ptilogonys* contains only these two species, *cinereus* in the northern and *caudatus* in the southern highlands of Central America. Likewise confined to these southern highlands is the little-known Black-and-Yellow Silky-Flycatcher, the sole representative of the genus *Phainoptila*. With the *Phainopepla*s of southwestern United States and Mexico, these birds make up the silky-flycatcher family (Ptilonotidae), which accordingly contains only three genera and four species. Some ornithologists merge this small group with the waxwings of North America and Eurasia.

tains where I studied the Quetzal were not high enough for these gray wanderers of the cool heights. Finally, in 1963, I passed the nesting season at "La Giralda," a large dairy farm near the western end of the massif of the Volcán Barba, the next height to the west of Irazú in Costa Rica's Cordillera Central. Fortunately, I had chosen this locality after considering one on Irazú, where my work would have been abruptly terminated by the eruption which began in March and which destroyed the farm. At La Giralda there were only light falls of ash.

In this shady pasture at an altitude of 7,500 feet the silky-flycatchers foraged and nested. They prefer open, cool heights.

Nests are not easily seen amid the pale gray beard-lichen used in their construction. Six feet up, this was the lowest of all.

Long-tailed Silky-Flycatchers rarely descend below 6,000 feet, but at La Giralda they were abundant between 6,500 and 7,500 feet, where I found them chiefly in pastures with scattered trees. I had not been long among them before I noticed a number of peculiar traits of character which distinguish them from every other bird that I know, save only the Gray Silky-Flycatcher. As is to be expected of relations of the Cedar Waxwing, silky-flycatchers are gregarious birds, although their flocks are smaller and less compact than those of the waxwing. The silky-flycatcher's life seems to be a continual compromise between social and individualistic impulses. When resting, the members of a flock often distribute themselves among neighboring trees, where they perch by preference on the topmost exposed twigs, appearing elegantly tall and slender with their upright stance, high crest and long tail, and presenting an unmistakable profile against the sky. When the flock moves, they straggle along, one or a few at a time, and frequently birds



which set forth together veer apart in flight, some perhaps returning to their starting point while others fly away in different directions. Rarely did I find more than a dozen silky-flycatchers in one of these loose aggregations, but once I counted at least 16 in the top of a tall alder tree. At nightfall, as they seek their roost, they form more compact flocks.

Silky-flycatchers love the open spaces of cool mountain heights. They rest at the summits of the tallest trees and fly above their tops, whether their course takes them over the pastures or above the heavy forest of massive, epiphyte-burdened oaks, into whose shady depths they rarely penetrate. Flapping their wings intermittently, they rise and fall in long undulations. Often at the same time they veer from side to side, as though unable to make up their minds where to go. Restless birds, they range widely over the mountains, covering many miles each day.

Although almost songless, silky-flycatchers are noisy, loquacious birds. The most common utterance of the long-tailed species is a sharp, dry *che chip, che chip*. This note is given in flight as well as while perching. It serves primarily to hold the flock together, but with slight modification it is repeated incessantly by parents apprehensive for the safety of their young. Rarely I heard a male, perching in the sunshine on a high, exposed twig while his mate incubated nearby, sing with low lisping notes.

Silky-flycatchers eat large quantities of both insects and small fruits. Of the latter, they are fond of the pea-sized, orange berries of a species of *Citharexylum*, a tree of the verbena family. With their small, weak bills, they sometimes have difficulty plucking these berries, even those which appear to be ripe. The black berries of the arborescent fuchsia and orange berries of mistletoes are also eaten. Insects of various kinds are caught in the air, often on long sallies from a high lookout.

On April 1, before the dry season ended, I found my first silky-flycatcher's nest. No others were noticed until after the middle of the month, when rains were frequent and the mountain was often shrouded in cold cloud-mist. The last of the 18 nests that I discovered still held nestlings in early July. Thus the silky-flycatchers, like most of their feathered neighbors, bred in the

early part of the long rainy season, when, despite inclement weather, insects were abundant and plants that had flowered during the drier months were yielding berries. The breeding pairs were not uniformly distributed over the hundreds of acres of mountain pastures where scattered trees offered sites for their nests, but were grouped in small, widely scattered colonies, each containing from two to four nests. The closest nests were only 65 feet apart, but more often those of a colony were separated by 150 to 225 feet. Each pair defended a poorly defined area extending around its nest site for a distance of about 75 to 100 feet. Both members of the resident pair flew at trespassers of either sex, who always retreated without resistance, so that clashes between them were never seen. When nests were unusually close together, one of them

Silky-flycatcher nest sites thousands of feet above Costa Rica's central plateau (middle distance). One pair nested at the right of the leafy tree in center and another at the left side of nearest dying tree.

might be screened by dense foliage, so that its attendants could come and go without attracting the attention of their nearest neighbors.

In height, the nests which I found ranged from 6 to about 60 feet, but the majority were from 10 to 20 feet above the ground. The male silky-flycatcher worked as hard at building the nest as his mate did. The chief constituent of all the nests was a profusely branched, pale gray beard-lichen (*Usnea*) that grew abundantly on almost every tree of these cloud-bathed heights. This material, like everything else that went into the nests, was pulled directly from the trees rather than picked up from the ground, on which silky-flycatchers seem never voluntarily to alight. To pluck these lichens was no easy task for these weak-billed birds, who often, after tugging valiantly at them, were content to fly to their nest with a scarcely visible fragment in their bills. Minor ingredients of the structure were small twigs and pieces of dry inflorescences, foliose lichens, and cobweb or caterpillar's silk, which was freely used to bind the lichens together.

Each partner arranged in the nest whatever it brought, scarcely ever passing its contribution



to its mate when it found the latter sitting there shaping the structure, as some birds habitually do. To convert the bushy lichens into a dense, felt-like mass required much vigorous work, which seemed to be done chiefly with the feet, invisible to a watcher on the ground. In considerably less than a week, the two builders completed one of the most beautiful and unusual birds' nests that I know. The hundreds of pieces of lichen which they had laboriously gathered were compacted into a firm, thick, resilient fabric, in form a broad, open cup. Unlike most nests, this structure had no special lining, but the inner surface was composed wholly of the same lichen that made up its bulk. Pieces of gray foliaceous lichens were more or less liberally attached to the outside, as in many hummingbirds' nests.

The silky-flycatchers' nests were often placed where there was little or no foliage to conceal them, sometimes on dead branches. But they were usually situated amid a profuse growth of the beard-lichen of which they were composed, which often hung in long streamers around them. Thus they blended so well with their setting that they were easily overlooked, although the practiced eye could often pick them out by

their solidity. Certainly the White-tipped Brown Jays, which preyed on the eggs and young, seemed to have little difficulty finding them.

Two or three days after the nest was finished, the female laid her first egg, early in the morning. The second egg was deposited considerably later on the following morning. In no case did I find more than two eggs, whose pale gray ground color, almost matching that of the lichens on which they rested, was blotched and spotted with shades of dark brown and pale lilac. The male, who had often sat in the nest to build it, no longer entered it, leaving the task of incubation to the female alone. Although she was often a restless sitter, leaving her nest from 15 to 45 times in the course of a day, usually she hurried back after a brief recess, so that she achieved a constancy remarkably high for so small a bird. Five females, each of whom I watched for an entire day, were on their eggs for 81 to 87 per cent. of their active period of 10 to 11 hours, counting from their first departure in the morning until their last return in the evening.

During the days when the nest was being built, the male often fed his mate, usually in the intervals when the pair rested from their toil, but

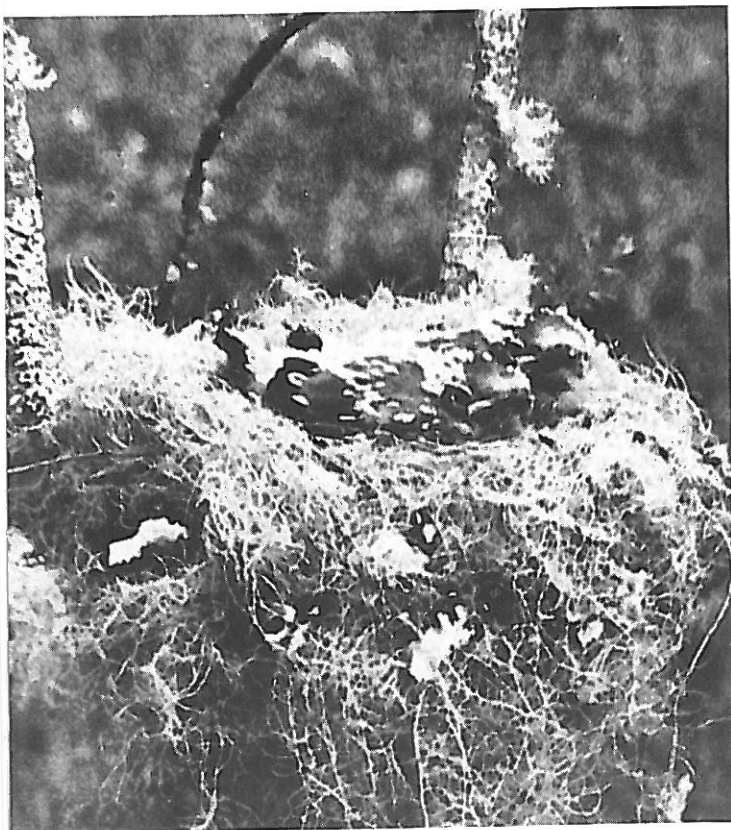
sometimes while they were actively building. One female arriving with material for her nest appeared to swallow it, in order to take the food which her partner presented to her. This nuptial feeding continued throughout the period of egg-laying and incubation. One male fed his incubating mate at least thirteen times in the course of a day, but at the latest nests the sitting female received little or nothing from her partner, whose zeal seemed to wane as the breeding season drew to a close. There was little correlation between the number of feedings by the male and the female's constancy in incubation, whence we may infer that, in any case, the incubating female gathered the greater part of her food on her frequent, brief excursions from the nest.

After 16 or 17 days of incubation, the eggs hatched, releasing nestlings as unique in appearance as the nest in which they lay. They bore short, compact tufts of whitish down, arranged in narrow rows which left large areas of blackish skin exposed. By breaking the nestling's surface into irregular areas, these lines of down made it more difficult to detect in the open nest. The

interior of the nestling's mouth was flesh-colored centrally, with a band of orange around the edges, and the flanges projecting from its corners were yellow. These nestlings developed slowly, and were about two weeks old before the upper surface of their bodies was fairly well covered with the expanding plumage, at least when their wings were folded. Their flight feathers grew even more slowly, and at the age of 18 days they could not fly. Two sets of nestlings that I carefully watched remained in their nests for the unexpectedly long period of 24 or 25 days. At this age they resembled their mother, but their crests were rudimentary and their tails still stubby.

The nestlings were brooded only by their mother, who ceased to cover them on clear mornings when they were about two weeks old, although she continued until they left the nest to

The new gray plumage of the 18-day-old birds is sprinkled with persistent tufts of natal down. Beard-lichen covers the stump.



Still unable to fly at the age of 18 days, these young silky-flycatchers almost fill their nest of the branched beard-lichen.

shield them from rain, which was frequent at this season. Both parents fed the young, at first almost wholly with insects caught on the wing, but with increasing quantities of berries as the days passed. Usually a number of items were brought at one time, held in the mouth and throat as well as the bill, and delivered to the nestlings in installments. As many as seven berries might be brought at once. During the nestlings' first days, when some females brooded them continuously for long intervals, the male parent might perch in a neighboring tree, with mystifying skill catching insects in a mouth from which they already overflowed, and holding his collection for seemingly interminable periods. When finally the mother left, and often not until she returned to feed the nestlings and resume brooding, he at last flew up to give the young a large meal. Other males would approach the brooding female with a billful of food, pass part of it to her, then, when she rose up to



feed the young beneath her, deliver the remainder directly to them. In 20 hours of watching, distributed throughout the nestling period, one male brought food 141 times, his mate 110 times. Even after the female ceased to brood, he fed the nestlings more often than she. All the nestlings' droppings were swallowed by the parents, and, aside from an empty shell, I never saw any waste carried from the nest in a parent's bill.

For all their profuse vegetation, the high mountains where Long-tailed Silky-Flycatchers dwell have a climate which is often rigorous and difficult for people not hardened to it. For days together, strong gales sweep over these heights, driving the cloud-mist through the trees and into houses that are not tightly closed. Rains are cold and often hard. Frost whitens open fields on clear, calm nights of the northern winter. These things seem not to trouble the hardy gray wanderers of the mountain-tops. They persist in resting on high, exposed perches while boisterous wind ruffles their plumage and twists their tails. Here they stay while the chilling gray clouds drift through the trees, dimming their thin forms until they appear unsubstantial and ghost-like—until, seeming to dissolve in the mist, they van-

ish. Then only their sharp *che chip* betrays their continuing presence. They faithfully attend their eggs and young even in the rudest weather. One day, while I watched an incubating female, a storm blew up soon after noon. The rain was driven by a northerly wind so violent that, in a sudden reverse gust, it blew my umbrella inside out. Thunder rolled heavily in the distance. The silky-flycatcher sat in her nest almost transversely to the wind's prevailing direction, presenting her long tail edgewise to its fury. She was pressed against the leeward side of the cup and was evidently clinging to the bottom with her feet to prevent being blown away. After she had sat continuously for two and a quarter hours—the longest diurnal session that I had seen any silky-flycatcher take—the wind abated temporarily and she left her eggs exposed for six minutes while she sought food. When she returned as the gale increased again, I saw that the wind had bent the ends of her long central tail feathers to the right—a curvature which persisted until the following day. Competent to confront the harshest weather of tropical mountains a mile or two high, silky-flycatchers are intolerant of the lowland's heat.