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The Nest and Eggs of the Black-and-yellow Silky-flycatcher (*Phainoptila melanoxantha*)

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The striking Black-and-yellow Silky-flycatcher (*Phainoptila melanoxantha*) is the only member of a genus confined to the mountains of Costa Rica and western Panamá. Although not rare, its habits are poorly known, and there exists no detailed account of its nest and eggs.

I found a nest of a Black-and-yellow Silky-flycatcher on 2 May 1972 at an elevation of 2,400 m on Volcán Poás, Alajuela Province, Costa Rica, while accompanied by F. G. Stiles and B. K. MacKay. The nest was located 1.5 m high in the central crotch of a 2-m sapling growing in the center of a dense thicket between the road and a large stand of montane forest. It contained two eggs. As our itinerary did not permit us to make further observations at the site, the nest and eggs were collected and are now in the collection of the Western Foundation of Vertebrate Zoology (No. 68,023).

The nest was a large, compact, open cup composed mostly of green moss interspersed with a few slender stems and fern fronds. It was lined with fine rootlets and plant stems. The outer diameter of the nest measured 22 × 16 cm, and it was about 12 cm in depth. The inner cup was 7 cm in diameter and 5 cm deep.

The two eggs measure 27.84 × 20.30 and 27.19 × 19.20 mm with empty dry shell weights of 0.274 and 0.260 g, respectively; they were subelliptical in shape (Preston *in* Palmer 1962, p. 13) and slightly glossy. They had a grayish-white ground color with a dense sprinkling of fine light gray, purplish brown, and dark brown spots over their entire surfaces. Each egg contained a slightly developed embryo.

I found an additional Black-and-yellow Silky-flycatcher nest on 26 April 1974 about 4 km E of Monteverde, Cordillera de Tilarán, Guanacaste Province, Costa Rica, while accompanied by H. Cernicek, M. Kiff, and C. Sumida. The nest was located in cloud forest within the Monteverde Cloud Forest Preserve at an elevation of 1,700 m. As in the case of the Volcán Poás nest, a male *Phainoptila* was perched on the top of a low shrub near the Monteverde nest. While I checked the nest contents, a female flew to within 2 m.

The Monteverde nest was empty, but apparently nearly completed. It was an open cup composed almost entirely of green moss; a lining had not yet been added to the inner cup. The nest was situated about 2 m high in the central crotch of a 3-m sapling growing in a thicket adjacent to a little-used trail. Unlike the Volcán Poás nest, which was located in such dense vegetation that it could not be seen from above or from the sides, the Monteverde nest was not well concealed and could easily be detected at a distance of 10 m.

M. Gochfeld (in litt.) informed me of another *Phainoptila* nest found by him, G. Tudor, and M.

Kleinbaum on 2 April 1969 near the summit of Volcán Poás. On a trail just within a stand of montane forest, they found a female Black-and-yellow Silky-flycatcher sitting on a nest located 4 m off the ground in a crotch of a slender sapling. The nest was just below the canopy of the tree and was clearly visible from below. It was an open cup, moderately compact in structure, and the bill, throat, and tail tip of the sitting bird (not flushed) were visible. Because the observers were unaware that the nest of *Phainoptila* was undescribed, no attempt was made to investigate its contents.

Sibley (1973) provided a detailed review of the taxonomic history and characters of the silky-flycatchers, including *Phainoptila*. Since its initial discovery, the taxonomic affinities of *Phainoptila* have been uncertain. Ridgway (1904) placed it in the Ptilogonatidae with reluctance, remarking that "the genus *Phainoptila* is doubtfully a member of this group . . . and might easily be referred to the Turdidae." Arvey (1951) thought that *Phainoptila* was the most primitive member of a group composed of the silky-flycatchers, waxwings, and palm-chats, all of which he lumped in the Bombycillidae. However, Skutch (1965) noted the behavioral dissimilarities between *Phainoptila* and other silky-flycatchers and echoed Ridgway's reservations about placing it with the ptilogonatid genera *Phainopepla* and *Ptilogonys*. Sibley (1973) found close agreement between the electrophoretic patterns of egg-white proteins of *Phainoptila, Phainopepla,* and the solitaires, *Myadestes*. He also summarized various morphological similarities between these genera and recommended that they be placed in the same family.

The appearance of the nest and eggs of *Phainoptila melanoxantha* supports a close relationship between it and *Phainopepla* and *Ptilogonys*. Published accounts of the nesting habits of *Phainopepla nitens* (Bent 1950), *Ptilogonys cinereus* (Rowley 1962), and *Ptilogonys caudatus* (Skutch 1965) indicate that, like *Phainoptila,* each of these species builds an open cup nest placed in the fork of a tree or shrub.

Aside from their somewhat blunter shape, the eggs of the Black-and-yellow Silky-flycatcher are simply larger versions of the eggs of *Phainopepla nitens* and *Ptilogonys cinereus* in the Western Foundation of Vertebrate Zoology collection. Judging from Skutch's (1965) description, the eggs of *Ptilogonys caudatus* are essentially identical to those of *P. cinereus*. The eggs of all four species are characterized by a pale gray or grayish-white ground color and a dense, almost uniform sprinkling of fine brown and lilac spots over their surface, although *Phainopepla* and *Ptilogonys* eggs occasionally bear a heavy wreath of markings near the large end. This egg color is so distinctive among passerine groups and at the same time so strikingly similar between these genera that it is reasonable to conclude that it indicates a close relationship between them.

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