

surrounding area, which should reduce predation, and they were warmer because of the direct sunlight.

Background vegetation also affected cut selection. Cuts with a background of residential lawns were highly preferred, while those having woods as the adjacent vegetation were avoided. Starlings seemed to be attracted to cuts where lawns and low-growing vegetation prevailed on the opposite side of the highway. They avoided cuts where woods were the dominant vegetation on the opposite side. Lawns, pastures, or areas with low vegetation offered excellent feeding places. These areas support great numbers of insects and worms, which are main items in the Starling's spring and summer diet (Kalmbach and Gabrielson, U.S. Dep. Agric. Bull. 868, 1921). Starlings were also attracted to cuts that were opposite other cuts.

CONCLUSIONS

The numerous cavities contained in cuts created by construction of the interstate highway system offer excellent nesting sites for Starlings. These cavities are spacious and predator-resistant, permitting the birds to establish both first and second brood nests

in the same cavity. Starlings nest in a variety of cut situations, but some cuts are more desirable as nesting sites. The characteristics of preferred cuts are: (1) west- or southwest-facing aspect; (2) cliff material of limestone; (3) cliffs devoid of vegetation; (4) adjacent vegetation either lawn or field, etc.; (5) another cut opposite the nest site; and (6) cut height of 7 to 12 m. No single characteristic seemed to distinguish a cut as a potential site. Instead, these characteristics were related, and when combined formed optimum nesting habitat. Construction of interstate highways is providing good nesting sites for Starlings in areas which formerly were not suitable. These sites are not being used by native bird species. An increased use of the highway cuts by Starlings may result in increased Starling populations.

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THE STATUS OF *SERICORNIS NIGROVIRIDIS*

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The Black-and-Green Sericornis (*Sericornis nigroviridis*), an Australasian tree warbler of the subfamily Acanthizinae (Keast 1976, Sibley 1976), was described from a single specimen collected by Alden H. Miller in the mountains of eastern New Guinea in 1962 (Miller 1964). The unique holotype is an adult male in breeding condition. No other specimen has been secured in the intervening 14 years, even though the type locality, Edie Creek (near Wau, Morobe Province) lies in one of the best-collected regions in all of New Guinea. In this note I present evidence to support my belief that *Sericornis nigroviridis* is not a good biological species but is instead a melanistic individual of the widespread Buff-faced Sericornis (*S. perspicillatus*), the eastern geographical representative of the *S. rufescens* superspecies.

I examined the holotype, a well-prepared study skin in the Museum of Vertebrate Zoology, University of California, Berkeley. In color, this specimen differs radically from all other species of New Guinea *Sericornis*. The plumage is largely dark olive green with soot-grey on the throat and breast (see Miller 1964, for full description and a color plate). A cursory examination of the plumage alone indicates that this represents a striking new form. The specimen's color pattern is unlike not only any *Sericornis* previously described, but also any of the New Guinea tree warblers in several respects. The generally uniform coloration above and below is atypical of this group, and the peculiar blackish-olive plumage is unique. Remarkable, then, is that this bird's dimen-

sions are nearly identical to those of the average adult male of *S. perspicillatus*! Table 1 presents measurements for the specimen of *nigroviridis* and specimens of several other sympatric species of the genus. Only those forms which inhabit the environment near the type locality are included. Nonetheless, these include three widespread species; no other high mountain forms are known from New Guinea.

All measurements of *nigroviridis* lie within the range of *perspicillatus*, and all except the culmen length (measured from the base of the skull) compare closely to the means of the series measured. Both *perspicillatus* and *nigroviridis* differ from *papuensis* and *nouhuysi* (Table 1). Miller's original diagnosis (1964) noted the similarity of this new form with *perspicillatus* (= *rufescens*, cf. Mayr 1941). Miller wrote (1964:3) "The rectal bristles, which are about half the length of the bill, in number and size are the same as in *Sericornis rufescens* [= *perspicillatus*] . . . the tail feathers are pointed, the inner veins being angled at the end as in *Sericornis rufescens* and the others in the genus . . . In details of the tarsus and feet I can find no significant departures from that of *S. rufescens*, although the latter has greater development of the plantar flange distally on the tarsus." Although this single specimen of *nigroviridis* exhibits minor physical differences from that of the typical *perspicillatus*, when one excludes plumage characters, the two forms are virtually inseparable. The shorter bill of *nigroviridis* may have resulted from damage incurred when the bird was shot. Miller mentioned that this was probably so (1964:3). The plumage anomalies can be explained easily as a case of melanism. Both the dark olive and soot-grey colors could be produced by excess melanin in the feathers and soft parts of the specimen. All of the lighter and brighter plumage characters of the typical *perspicillatus* are replaced with darker and duller colors in *nigroviridis*.

TABLE 1. Comparative measurements of specimens of several *Sericornis* species from northeastern New Guinea.¹

Species	Weight	Wing (arc)	Tail	Tarsus	Culmen (from base)
<i>nigroviridis</i> N = 1 ♂	8.8	55.0	40.0	19.5	11.5
<i>perspicillatus</i> N = 10 ♂ ♂	8.6 ± 0.6 (7.4 - 9.2)	55.4 ± 1.0 (53.0 - 57.0)	39.6 ± 3.0 (35.0 - 45.0)	19.0 ± 0.4 (18.6 - 19.8)	12.3 ± 0.5 (11.5 - 13.1)
<i>papuensis</i> N = 10 ♂ ♂	9.9 ± 0.5 (9.0 - 10.0)	58.0 ± 0.8 (57.0 - 59.0)	41.0 ± 2.0 (39.0 - 45.0)	20.8 ± 0.7 (20.0 - 22.0)	13.0 ± 0.7 (11.5 - 13.8)
<i>nouhuysi</i> N = 10 ♂ ♂	16.2 ± 1.2 (14.0 - 17.4)	68.0 ± 2.0 (62.3 - 72.0)	---	---	---

¹ Data presented are mean ± standard deviation with range in parentheses. All measurements in mm.

Similarly, the bill and legs of the latter are much darker than a typical *perspicillatus*.

A second indication that *nigroviridis* may be an aberrant individual comes from the biogeography of New Guinea birds. Even at the subspecific level, the region where the type was collected has little endemism (Greenway 1935, Beehler, unpubl.). No sound species and very few sound subspecies are limited to the Upper Watut region. Why hasn't *S. nigroviridis* been collected elsewhere in New Guinea? Throughout New Guinea only a few birds have severely circumscribed limited distributions; these are limited by their habitat requirements (as in some of the high mountain forms of the Snow Mountains). In addition, the taxa which are confined almost always are quite common where they do occur. Neither of these features applies to *S. nigroviridis*.

The history of ornithological exploration in this portion of Morobe Province is long and impressive. Several other ornithologists and I have collected or netted and banded over 4,000 birds in this area (Mayr 1931, Greenway 1935, Gilliard 1969, Beehler, unpubl.). I have netted more than 200 individuals of *Sericornis* species, many within 3 km of the type locality of *nigroviridis*. I visited and searched for the bird at Miller's collecting site. Individuals of *Sericornis* are easy to net and observe; it seems unlikely that *nigroviridis*, even a marginally small population, would escape detection under these circumstances.

The holotype was shot in secondary growth woods at 2,300 m, along a trail in an extensively disturbed gold-mining area. Thus one can not suggest that the bird occupied a rare or peculiar habitat. Similar secondary growth is abundant through the region and elsewhere in New Guinea. The birds in this habitat at this elevation (*Gerygone ruficollis*, *Phylloscopus trivirgatus*, *Zosterops novaeguineae*, *Myzomela rosenbergii*, *Melidectes belfordii*, and *Ptiloprora guisei*, among others) almost invariably are common and conspicuous. Miller's specimen of *nigroviridis* was taken while it was foraging 8 m above the ground in a small tree. *Sericornis perspicillatus* commonly inhabits forest-edge and it forages at that level in the vegetation (Diamond 1972, Beehler, pers. observ.).

After close examination, I find no features of *Sericornis nigroviridis* that strongly support its status as a good biological species. The lack of specimens

in spite of intensive exploration and collection, the environmental aspects, the remarkable structural similarity to *perspicillatus*, and the melanistic plumage all seem to indicate that *nigroviridis* is represented by an abnormal individual and not a population.

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