

Lamprolia AS PART OF A SOUTH PACIFIC RADIATION OF MONARCHINE FLYCATCHERS

By STORRS L. OLSON

The Silktaill, *Lamprolia victoriae*, is a small passerine bird that exists in two morphologically distinct populations in the Fijian islands of Taveuni and Vanua Levu; on the latter it is evidently confined to the Natewa Peninsula (Heather 1977). Its plumage is velvety black, spangled about the throat, crown, and epaulets with metallic blue; the upper tail coverts and variable portions of all but the outer rectrices are silky white. The female plumage is like that of the male but duller. The striking livery of *Lamprolia* has occasioned much wonder and is probably one of the chief factors responsible for its familial relationships having remained obscure up to the present. Mayr (1945), for example, regarded it as "one of the most puzzling birds of the world" and did not assign it to a particular family.

Cottrell (1967) reviewed the literature of *Lamprolia* in detail and the reader is referred to his paper for the history of taxonomic opinions regarding the genus. Heather (1977) provided new information on ecology and behaviour of the population on Vanua Levu, *L. v. kleinschmidti*. Although Cottrell (1967: 253) considered "the problem of relationship" to be "as open as ever," both he and Heather (1977) expressed a tendency to favour the old idea that *Lamprolia* may belong with the birds-of-paradise (Paradisaeidae). The evidence for paradisaeid affinity is excessively tenuous, having originated in the similarity of the metallic spangled plumage to that of paradisaeids such as *Manucodia*, and of the velvety black feathers to those of *Ptiloris*. This view was supported subsequently only by Cottrell's observation that the movements of *Lamprolia* among vegetation were reminiscent to him of the movements of *Paradisaea*.

The evidence against a paradisaeid relationship for *Lamprolia* is far more satisfying. Beecher (1953: 294) dissected the jaw muscles of *Lamprolia*, finding them to be unlike those of the Paradisaeidae. He concluded that "*Lamprolia* is definitely not related to the birds of paradise." Bock (1963: 119) found a number of distinctive characters of the skull in the Paradisaeidae, none of which occurs in *Lamprolia*. He likewise conclusively stated that "*Lamprolia* is not a paradisaeid." *Lamprolia* bears no particular resemblance to any bird-of-paradise in size (it is much smaller), plumage pattern, or bill shape. Nothing yet known of its behaviour can be linked to any of the ritualised behavioural patterns known in birds-of-paradise. Adding to the unlikelihood of *Lamprolia* being a bird-of-paradise is the fact that the Paradisaeidae

do not exist outside of Australo-Papua and a few of the Moluccan islands, the family being absent even from the Bismarck Archipelago.

The only other tentative placement of *Lamprolia* with any currency is based on the suggestion of Beecher (1953) that the genus might belong with the "Malurini," as then construed. Harrison and Parker (1965), in restricting the limits of the Malurinae, noted a similarity in plumage between *Lamprolia* and *Malurus alboscapulatus*. They provisionally included *Lamprolia*, along with *Malurus*, *Todopsis*, *Chenoramphus*, *Clytomyias* and *Stipiturus*, in a subfamily Malurinae, which they placed in the Timaliidae. Again, the same zoogeographic problem arises as encountered with the Paradisaecidae; none of these genera save *Lamprolia* occurs outside Australia and New Guinea.

The resemblance of *Malurus alboscapulatus* to *Lamprolia* is very superficial, being confined to a tendency towards a metallic sheen on the black portions of the plumage, combined with silky white feathers, which, however, are restricted to the mantle and epaulets, rather than the rump and tail. The bill is shorter, wider, and flatter, and lacks the notch at the tip seen in *Lamprolia*. The nostrils in *Malurus* have a decided operculum, lacking in *Lamprolia*, and the loreal feathering does not extend out over the nostrils as in *Lamprolia*. The proportions are utterly different, the tarsi in the two genera being of nearly equal length, while in *Lamprolia*, which is a much larger bird, the wing is nearly twice the length of that in *M. alboscapulatus*. The wing and tail are nearly equal in length in *Malurus*, whereas in *Lamprolia* the tail is only a little over half the length of the wing.

On the basis of plumage and external morphology, as well as zoogeography, I believe that a much more convincing argument can be made for placing *Lamprolia* with the monarchine flycatchers (Muscicapidae: Monarchinae). Conspicuously contrasting patterns of black and white are characteristic of a number of monarchine genera (e.g. *Monarcha*, *Arses*, *Metabolus*, *Terpsiphone*). In many species the dark portions of the plumage have a metallic iridescence and the feathers often have a squamate spangled appearance, though not to the same degree as in adult males of *Lamprolia* (e.g. *Monarcha barbatus*, *M. leucurus*, *M. guttula*, *M. manadensis*, *M. trivirgata*, *M. alecto*, *Arses telescopthalmus*, *Metabolus rugensis*, and various species of *Terpsiphone*). The rectrices in *Monarcha leucurus* are patterned with white in a manner reminiscent of *Lamprolia*, and in adult males of *Metabolus rugensis* of the Caroline Islands, the entire plumage, except the throat, forehead and primary tips, is a soft silky white, not unlike that of the rump and rectrices of *Lamprolia*. Furthermore, the females of *Metabolus* are dull sooty-gray birds resembling an overgrown juvenile *Lamprolia*, and they sometimes have white colouring on the rump or tail (Baker 1951), also like *Lamprolia*.

The bill in *Lamprolia* is longer and more slender than typical of most Monarchinae, but the bill of *Metabolus rugensis* is similar in

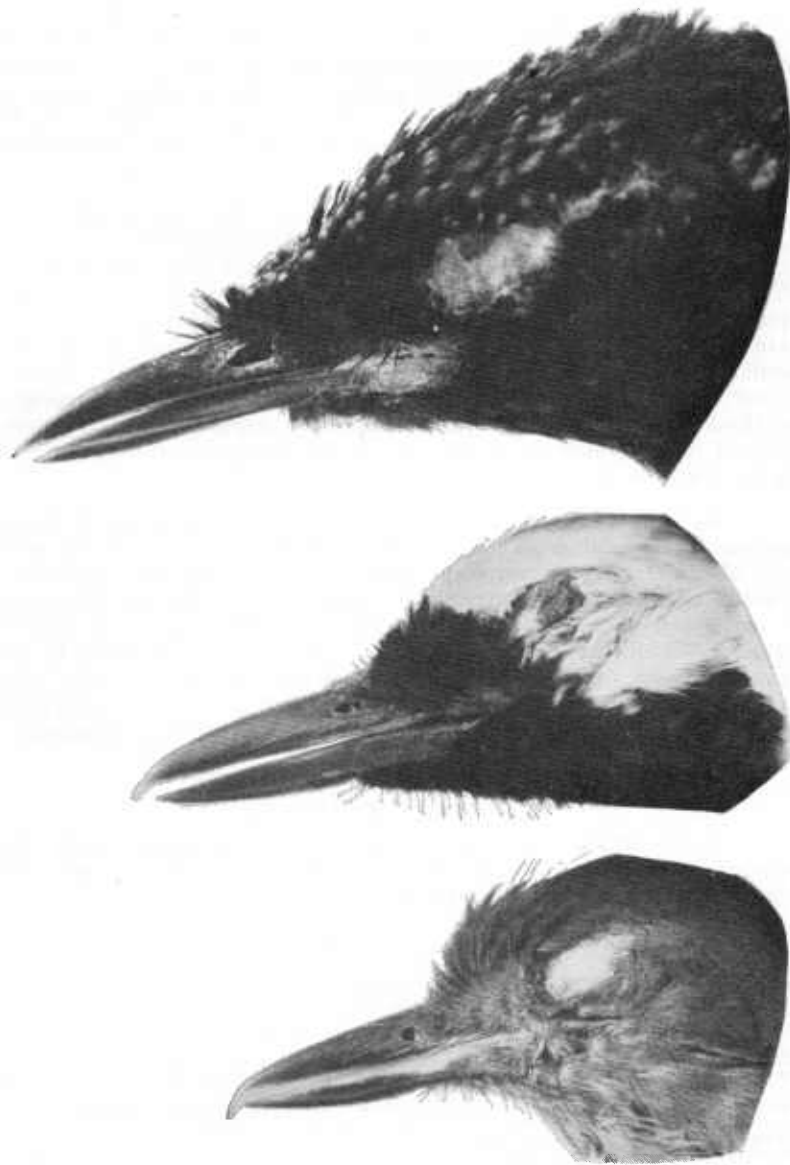


FIGURE 1 — (Top to bottom) *Lamprolia victoriae*, *Metabolus rugensis*, *Clytorhynchus v. vitiensis*, to show the general similarity in bill shape. Not to scale, *Lamprolia* being considerably enlarged relative to the others.

shape to that of *Lamprolia victoriae* (Fig. 1) and neither species represents a great departure from the more slender-billed species of *Monarcha* or certain forms of *Clytorhynchus*, especially *C. v. vitiensis*. The monarchines and *Lamprolia* possess the tomial notch, which is lacking in *Malurus*. Although the tail in *Lamprolia* appears to be relatively shorter than in other monarchines, the rest of its proportions are otherwise not dissimilar.

On zoogeographic grounds, a monarchine relationship for *Lamprolia* is most reasonable. The monarchine flycatchers have undergone considerable radiation in Oceania, and the Fijian Islands are at the centre of this radiation. With 3 genera, 6 species, and 17 subspecies, in addition to *Lamprolia*, Fiji has a larger number of monarchine taxa than any island group in the Pacific (the species are *Myiagra vanikorensis*, *M. azureocapilla*, *Mayrornis versicolor*, *M. lessoni*, *Clytorhynchus vitiensis*, and *C. nigrogularis*). Unlike the Paradisaeidae or Malurinae, the monarchine flycatchers have dispersed widely to many isolated island groups — as far east as the Marquesas (*Pomarea*) and as far north as the Hawaiian islands (*Chasiempis*).

As a member of the Monarchinae, *Lamprolia* presents fewer anomalies of morphology and distribution than it does if included with any of the families heretofore suggested. Although this placement requires confirmation by anatomical studies, I cannot see that *Lamprolia* is particularly aberrant, apart from plumage differences of a specific nature. Within the Monarchinae, the similarities of *Lamprolia* lie on one hand with *Metabolus* and *Clytorhynchus*, and on the other with *Monarcha* itself. In the sequence of Morony *et al.* (1975), *Lamprolia* could therefore be interposed as follows: *Clytorhynchus*, *Metabolus*, *Lamprolia*, *Monarcha*.

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