

**Notes on the nesting, parental care, and taxonomy of the Silktail (*Lamprolia victoriae*) of Fiji**

The Silktail is a 13 cm long, fine-billed, sexually monomorphic, insectivorous passerine. It has velvety black plumage, silky-white rump, upper tail-coverts and upper tail, and iridescent-tipped scale-like feathers about head, neck, throat and breast, which may appear blue, green or violet. It is found in coastal and upland mature forests on the Fijian islands of Taveuni and Vanua Levu but on the latter is confined to the Natewa Peninsula (opposite Taveuni) where birds are sparser and smaller and represent the distinct subspecies *L. v. kleinschmidti* (Heather 1977, Watling 1982, Frith 1985).

The affinities of monotypic *Lamprolia* have, since its description in 1873, remained the subject of considerable and largely inconclusive debate (Cottrell 1966, Heather 1977, Olsen 1980, Frith 1985). The bird is thus of considerable systematic interest, and any information on its little-known biology beyond that reviewed by Cottrell and Heather is important.

We did some brief field work at 100 m a.s.l. on Taveuni in forest directly above the Tutu Catholic Seminary on 21-22 August 1987. At 1030 on 21 August, two adult Silktails hit a mist net as it was being erected. After being photographed and released, they remained, to our surprise, in the immediate vicinity. From 1445 onwards we observed these adults feeding a recently flying (1-2 days) young on low (< 2 m) forest vegetation.

On 21 August DW found a Silktail nest, containing a single well-developed nestling, 2 m above ground and suspended by its rim in the horizontal fork of a broad-leaved sapling well sheltered by several leaves directly above, as described and illustrated by Heather (1977). Heather noted two distinctly different forms of Silktail nest, one constructed of dry fibres and shredded dead leaves without external decoration and with few feathers lining the egg cup and another much decorated outside with green moss-like liverwort and completely lined inside with numerous feathers. The nest we observed was of the second kind.

On 22 August CF took photographs from a hide while DF and DW observed activity with field glasses from a distance of c.25 m. Two adults made very brief feeding visits to the nest, feeding insects to the young bird and carrying its faecal sacs off in the bill, always leaving the nest by dropping conspicuously downward. Only one adult visited the nest at a time, but several times one left the nest as the other arrived. After much wing flapping and stretching exercises on the nest rim, the nestling flew to the ground, but CF put it back in the nest (to obtain photographs), where it stayed to preen its plumage, which had become sodden in wet forest-floor foliage. Doubtless the nestling flew on 23 August.

On 22 August DW saw another newly fledged Silktail, definitely not the one seen on 21 August. All three observers repeatedly saw several adults foraging for insects on the leaf litter of the forest floor (reported by Heather as common on Taveuni), over rocks, and in the forest foliage up to c.7m above ground.

Heather (1977) reviewed Silktail breeding data. On Taveuni a nest was under construction 9-11 September; a nest with the single-egg clutch was recorded for May (DW), four or five nests in early June (Clunie *in* Heather 1977) and a nest with egg some time in "July/August" (Layard 1876), 22-26 August, 11 December, and three on 11-17 December. Near-fledged and recently fledged young are recorded for "late July/early August" (Layard 1876) and 9-13 September, and Holyoak (1979) found fledged young plentiful between 12 and 21 July. On Vanua Levu a nest with egg and a juvenile were seen on 4-7 September (Heather 1977).

Our observations of three fledged young and several recently vacated nests during 21-22 August suggest that there was local synchronised breeding by *Lamprolia* on Taveuni in 1987. Present data suggest nesting is predominantly during June to September. Records of clutches in December, and an apparent lack of breeding activity between 25 August and 10 September 1970 (Blackburn 1971), indicate that the breeding season may vary, as climate and/or food resources dictate. Silktail nesting appears to be seasonal as there are no nesting records for January to April inclusive, contrary to Heather's suggestion that it may breed at any time of the year.

Observations reviewed by Heather suggest that only one bird nest-builds and incubates. We once saw a second bird promptly appear in the immediate nest area when the sitting bird gave a scolding call. Holyoak (1979) wrote of the Taveuni Silktail "groups of three usually including a fledged juvenile", and of young begging food from "adults accompanying them", clearly suggesting that two adults feed the nestling/fledgling; as observed by P. Child on Vanua Levu (*in* Heather 1977) and by Heather on Taveuni. Our observations confirm that two adults feed the nestling.

Cottrell's (1966) excellent review of the systematic history of *Lamprolia* makes it clear that, although earlier authors expressed the view that the Silktail is morphologically very similar to some birds of paradise, particularly members of the genera *Manucodia* and *Ptiloris*, none of them formally placed it in the Paradisaeidae. Beecher (1953), having dissected a *Lamprolia* specimen, emphatically stated that it is not related to birds of paradise. Bock (1963) compared *Lamprolia* and Paradisaeidae skull morphology and found several distinctive bird of paradise characters lacking in the former, and agreed with Beecher (1953). Cottrell (1966) and Heather (1977) speculatively reverted, however, to the notion that *Lamprolia* should be considered a possibly close relative, if not member, of the Paradisaeidae. Olsen (1980) forcefully and convincingly argued against this view and concluded that *Lamprolia* is part of the South Pacific monarchine flycatcher radiation (Monarchidae) closest to the genera *Clytorhynchus*, *Metabolus* and *Monarcha*. Olsen did not consider the nest and egg and general behavioural characteristics of the Silktail. As CF has experience of 29 of the 43 (Beehler *et al.* 1986) bird of paradise species in the wild or in captivity and of the nests and eggs of many of them (Harrison & Frith 1970, Frith 1970, 1971, Bishop & Frith 1979 & pers. obs.) we make the following observations.

The Silktail nest is unlike that of any known bird of paradise nest (Cooper & Forshaw 1977 & pers. obs. of CF) in almost every character, including the basic materials, the nest lining and the nest site. All known typical

paradisaeid nests are a bulky cup or bowl of coarse materials built upon a substantial stick foundation, placed atop a fork, on palm frond bases, or in a crevice, and lack feather lining. Some atypical paradisaeid nests are domed structures built on tree stumps or against tree trunks (Cooper & Forshaw 1977, Frith 1985 & pers. obs.). No known bird of paradise nest is suspended from a sapling or tree fork by its rim. The egg of the Silktail is not typical of a paradisaeid. In materials, decoration, site, shape and colour the nest and eggs of *Lamprolia* are much more like those of some of the monarchine flycatchers, supporting the classification based on plumage, external morphology and zoogeography of Olsen (1980).

The Silktail is unlike birds of paradise in general character and behaviour. It has, however, been seen to hold a food item beneath a foot in order to tear it apart, behaviour characteristic of most birds of paradise (pers. obs. of CF & DF) but also typical of the monarch flycatchers, Monarchidae (Parker 1985 & pers. obs.).

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CLIFFORD & DAWN FRITH, "*Prionodura*", *Paluma via Townsville, Queensland, Australia* 4816  
 DICK WATLING, *Box 2041, Government Buildings, Suva, Fiji*

★ - The authors have agreed that I take this opportunity to correct a serious error on page 177 of my 1977 paper. The egg of *L. v. kleinschmidti* measured 19.6 x 14.8, not 16.6 as printed. I am grateful to Prof. V. Meise of Hamburg for pointing this out several years ago - Ed.