The Lesser Melampitta is a Bird of Paradise

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The Lesser Melampitta Melampitta lugubris is a small (c. 17-18 cm), long-legged oscine passerine bird that lives in dense undergrowth on the floor of the mountain forests of New Guinea. The adults are entirely black and their short, erect forecrown feathers are iridescent and plushlike, as in some birds of paradise. The immatures have rusty-brown underparts.

The Lesser Melampitta was placed in the genus Coracopitta of the Pittidae by Sclater (1888, p. 449) who noted that 'Until anatomical investigations have been made, it must remain doubtful whether this type should be referred to the Pittidae or to the Timaliidae.' Sclater noted the 'short erect frontal plumes' but did not link this species to the birds of paradise. Sharpe (1901, p. 185) also included the Lesser Melampitta in the Pittidae, with a footnote: 'Count Salvadori tells me that, in his opinion, this genus [Melampitta] belongs rather to the Timaliidae than to the Pittidae.' The oscine relationships of Melampitta lugubris were established by Mayr (1931) from a study of the syrinx. He concluded that Melampitta is a timaliid, possibly related to Crateroscelis and Amalocichla. Mayr noted differences and similarities between Melampitta lugubris and the Greater Melampitta M. gigantea, and concluded that the two species are related. Mayr (1941, p. 108) placed lugubris and gigantea in the Timaliinae of the Muscicapidae, and noted that gigantea, 'In spite of its lengthened tail . . . is clearly congeneric with lugubris.' Rand & Gilliard (1968,
With the technique of DNA-DNA hybridisation, we have compared the radioiodine-labelled single-copy DNA sequences of *Melampitta lugubris* with the total DNAs of species representing all of the groups of oscine passerines known from New Guinea and Australia. Our methods have been described in several publications (e.g. Sibley & Ahlquist 1983, 1985).

Figure 1 indicates the position of the *Melampitta* branch in the phylogeny of the Australo-Papuan passerines. Reference to Sibley & Ahlquist (1985, Fig. 4) may also be helpful.

Please note the following categorical name changes from Sibley & Ahlquist (1985): suborder Oligomyodi becomes Tyranni; suborder Passeres becomes Passeri; parvorder Corvi becomes Corvida; superfamly Munuroidea becomes Pilonorhynchoidea; family Acanthisiidae becomes Pardalotidae; family Pomatostomidae becomes Pomatostomatidae; tribe Motouini follows the Neosittini; tribe Oreoicini deleted, *Oreoica* included in Falcunculini; subfamily Monarchinae becomes Dicuririnae; tribe Cracti- cini becomes Artamini; parvorder Muscicapae becomes Passerida; superfamly Turdoidae becomes Muscicapoidae; family Turdidae becomes Muscicapidae; tribe Erithacini becomes Saxicolini; superfamly Fringillioidea becomes Passeroidea; delete subfamily Melanocharitinae and add family Melanocharitidae, with tribes Melanocharini and Toxorhampini, following tribe Nectarinini; add family Paramythiidae (*Paramythia, Oreochroa*) following Melanocharitidae; family Plocineidae becomes Passeridae; insert subfamily Fringillinae between family Fringillidae and tribe Carduelini. These changes are in accordance with the International Rules of Zoological Nomenclature and most were suggested by Dr Burt L. Monroe, Jr., on the basis of priority in the use of family group name for the higher taxa followed by black dots, e.g., *Melampitta lugubris*, were used as radio-labelled 'tracers' in this study.

The Greater Melampitta (*Melampitta gigantea*) is one of the least known and apparently rarest New Guinea birds. No field observations at all have been reported for it. Only six specimens are known from four far-flung areas of New Guinea (Diamond 1983, p. 89). The Greater Melampitta is much larger than the Lesser Melampitta but, like *lugubris*, the adults of *gigantea* are entirely black, and the presumed immatures have areas of rusty brown in the plumage. Diamond (1983) observed this species in the Fakfak Mountains of north-western New Guinea and described its song and unusual nesting and roosting sites in the walls of limestone sinkholes. He also examined four of the six specimens and obtained data on the other two. Diamond tentatively assigned the species to the Orthonychia and noted plumage similarities to *Ptilorus dichrous*,

![Figure 1. Phylogeny of some groups of old endemic Australo-Papuan passerines. Numbers on divergence nodes, e.g., 6.3, are average Delta T50H values. The single-copy DNAs of the taxa followed by black dots, e.g., *Melampitta lugubris*, were used as radio-labelled 'tracers' in this study.](https://example.com/figure1.png)
which we place in the Pachycephalinae of the Corvidae based on DNA comparisons (Sibley & Ahlquist 1985).

Diamond (1985, p. 72) also found the Greater Melampitta in limestone sink (karst) terrain in the Kumawa Mts, and heard the same song he had recorded in the Fakfak Mts. He realised that the song of this species is 'suggestive in quality and pattern of a song of' the Black Pitohui (Pitohui nigrescens). Diamond noted that 'Mary LeCroy has pointed out to me that M. gigantea (and three species of Pitohui) share the peculiarity of having abundant egg cases of feather mites around the eyes ... Could these parallels be relevant to the problem of M. gigantea's affinities, which are obscure?' Specimens of M. lugubris seem to lack feather mite egg cases around the eyes. The systematic significance of these observations is uncertain.

In July, 1985, Sibley examined the two specimens of Melampitta gigantea in the collection of the British Museum (Natural History) at Tring. A female (BM Reg. 1911.-12.20.1069), collected on December 14, 1912, is the specimen from the Utakwa River identified as No. 3 by Diamond 1983, pp. 90, 91. As noted by Diamond, this bird is entirely black. The forecrown plumage is not iridescent, but the feathers are short, erect, and plushlike, as in M. lugubris.

Although the answer remains uncertain, the present evidence suggests to us that Melampitta gigantea is most closely related to M. lugubris and is, therefore, also a bird of paradise. The shared characters include the brownish areas of the plumage of presumed immatures and the plushlike forecrown feathers. DNA comparisons may, someday, test this hypothesis.

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References


