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NEOCOSSYPHUS AND STIZORHINA AND THE RELATIONSHIP OF THRUSHES WITH FLYCATCHERS

C.H.Fry

The Ethiopian genera Neocossyphus and Stizorhina are thrush-like forest birds each with two species, of which N. poensis[1] closely resembles S. finschi,[2] and N. rufus[3] even more closely resembles S. fraseri.[4] Bannerman (1953) followed the almost invariable practice until that time of putting Neocossyphus in the Turdidae (thrushes) and Stizorhina in the Muscicapidae (flycatchers), presumably on the grounds (although this is not stated) that Stizorhina is flycatcher-like by habit, and has the broad bill and short metatarsi typical of flycatchers. Chapin recognises the close affinity of the two genera by placing them in sequence within the Turdidae (Bds. of the Belgian Congo, 1953).

It is widely recognised of course that the thrushes, flycatchers and warblers are a closely-related assemblage of passerine birds, and it appears to be common practice at the present time to unite them in a single family, the Muscicapidae. Hence Vaurie (1959) gives the Muscicapidae two subsidiary and four main subfamilies (Turdinae, Muscicapinae, Sylviinae (warblers) and Timaliinae (babblers)), and White (1962) also treats the Turdinae as a subfamily of the Muscicapidae sens. lat. The latter author regards the African Turdinae as comprising six groups, to which he gives colloquial but not taxonomic names. One of these is the African Robins with 10 genera including Cossypha, Neocossyphus and Stizorhina.

Both N. poensis and S. finschi are of frequent occurrence in mature forest reserves in Western Region (Button; Fry; Bull. Nig. Orn. Soc. 1) and I have noted one or both species at Ipake, Olokemeji, Gambari and Idanre. Difficult as these shy forest species are to observe, I had accumulated some field notes on both, although some confusion as to identification existed, when I netted N. poensis at Ipake on 17th February 1962 and S. finschi, also at Ipake, on 28th April 1962. Identity was confirmed by the British Museum, to whom my thanks are due, and both skins were deposited in the University of Ibadan collection. I was greatly impressed by the similarity of the two species, which are orange below with brown head, back and tail, an almost identical pattern of white in the outer tail feathers (fig. i), orange bases to the primaries and secondaries, and flesh-coloured legs and feet. The plumage differs mainly in that the 'thrush' is slate above and the 'flycatcher' dark olive brown with a dark chestnut rump. Both birds have rictal bristles and a thrush-like bill, but the bristles are longer and the bill shorter and wider in Stizorhina. The foot and leg is much weaker in Stizorhina.

1.White-tailed Ant-Thrush 2. Finsch's Rusrty Flycatcher 3.Red-tailed Ant-Thrush 4. Fraser's Rusty Flycatcher .

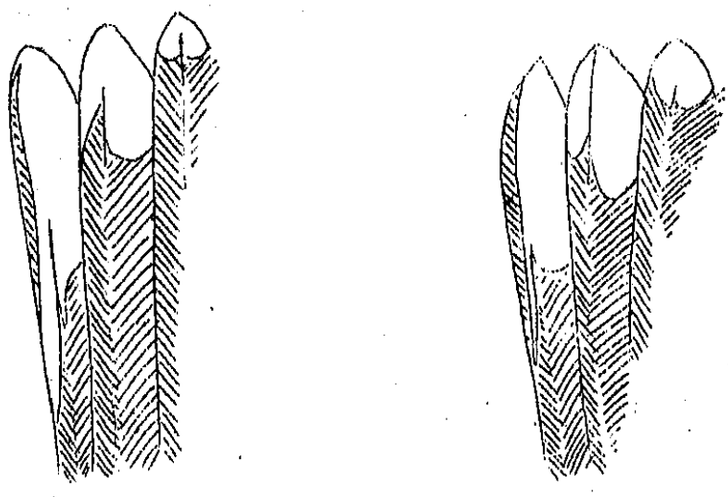

fig. i. Outer tail pattern of Neocossyphus poensis (left) and Stizorhina finschi .

Examination of skins in the British Museum shows that N. rufus and S. fraseri are even more similar to each other than the preceding two species; virtually the only differences between rufus and fraseri are in size, dimensions of the soft parts, and the richer chestnut in the wing and tail of rufus.

By habit, N. poensis is a typical thrush, with a turdine ticking alarm call; it lives on or near the forest floor and has the horizontal stance and thrush-like mannerisms of a Blackbird (Turdus merula). What few observations I have would indicate that S. finschi inhabits the middle or upper storeys; I have not actually seen the species 'flycatching' but it has the upright stance when perched typical of all flycatchers, and it seems likely that the bird feeds by making sallies after flying insects, returning to a perch to consume them (although this is denied by Mackworth-Praed & Grant).

It is very difficult to credit, from a study of plumage, that Stizorhina and Neocossyphus are not closely related; there are however rational grounds (habit;bill and leg structure) for including Stizorhina in the Muscicapinae. Hence, on the assumption that the Turdinae, being less specialised, are the more primitive stock, it appears that Stizorhina is an example of a thrush evolved into a flycatcher, which indicates that the Muscicapinae may be polyphyletically derived from the Turdinae (fig. ii). As with many cases amongst the higher taxa (e.g. some vertebrate Classes), it seems that the Muscicapinae are better regarded not so much as a unit derived from a single ancestral stock, but as a grade of organisation (or better, a habit grade) which has been arrived at independently by more than one line within the Muscicapidae (= Turdidae in the widest application).

The origin of the various species in the two genera is problematic. Superficial similarities between the four birds, and respective geographical distribution, may be indicated as follows, the resemblance of fraseri to finschi being very great, fraseri to rufus great, finschi to poensis considerable, while rufus and poensis are well-demarcated species within their genus but certainly congeneric :

	Neocossyphus		Stizorhina	
N. Congo forest & Zanzibar coast	rufus	=	fraseri	Congo forest E. to Uganda
			‖	
Upper Guinea & middle Congo forests	poensis	-	finschi	Upper Guinea forest

One can postulate evolution between the pairs to be either vertical or horizontal in this diagram; i.e either (horizontal) rufus and poensis gave rise to fraseri and finschi respectively in Central Africa and Upper Guinea (or the flycatchers gave rise to the thrushes); or (vertically)/a Neocossyphus and/a Stizorhina say in Central Africa each speciated on migrating to Upper Guinea.

As horizontal evolution here would require sympatric speciation, the postulate of vertical evolution is more acceptable.

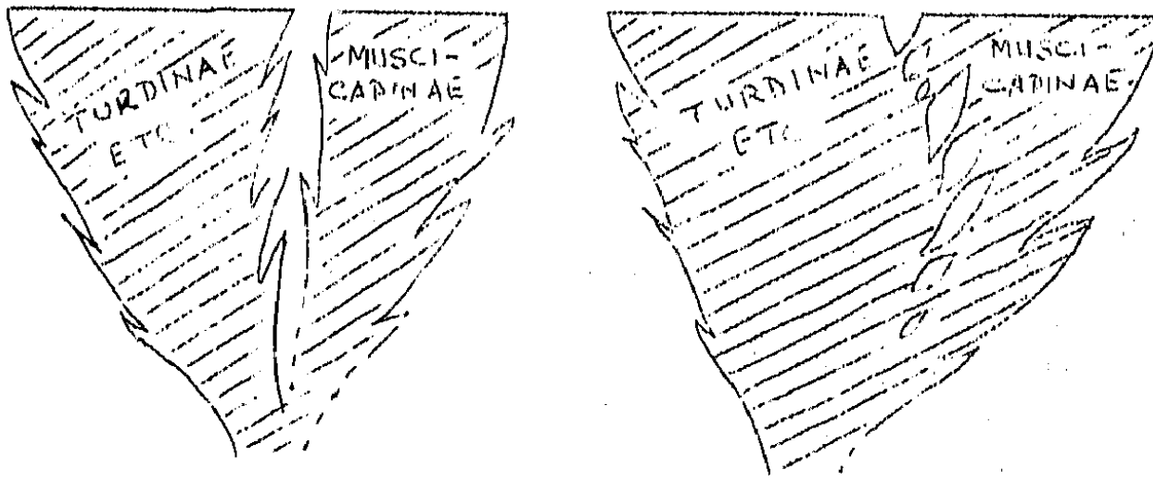

fig. ii. Dendrograms of monophyletic (left) and polyphyletic origins of the Muscicapinae from turdine stock.

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N O T E S

Lanner Falcon Attacking Pied Crow. On teh morning of 16th March 1964 V.W.S., C.H.F. and myself were of Kaffo Rock near Vom on the Jos Plateau, watching swallows and swifts hawking insects along the cliff-face. Our attention was drawn to a fissure in the cliff-face which appeared to contain a sitting bird, which was subsequently disturbed and proved to be a Lanner Falcon Falco biarmicus. The bird flew up to