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## Notes on the systematics of the Rockrunner *Achaetops* (Passiformes, Timaliidae) and its presumed relatives

by Storrs L. Olson

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The Rockrunner or Damara Rockjumper *Achaetops pycnopygius*, which inhabits rocky country in Namibia and southwestern Angola, has had a rather curious taxonomic history. The species was "originally" described on three different occasions, first in the African sylviid genus *Sphenoeacus* as *S. pycnopygius* (Sclater in Strickland & Sclater 1852). It was next independently described as *Drymoica* (= *Prinia*) *anchietae* by Bocage (1868). Maintaining its association with the Sylviidae, Gray (1869) listed it as *Megalurus pycnopygius*. Finally, Sharpe (1869) unwittingly described the bird anew as *Chaetops grayi*. Hartlaub (1869: 126) pointed out that this was the same species as Bocage's *Drymoica anchietae*, and Tristram (1870: 497 footnote) showed that both of these were synonyms of Sclater's name. He also quoted Jules Verreaux to the effect that the species "cannot properly be included in any one of the genera to which it has been referred, and that probably a new genus should be established for its reception". This opinion notwithstanding,

the bird was known at least until 1922 as *Chaetops pycnopygius* and was associated with the South African rockjumpers *Chaetops frenatus* and *C. aurantius* in the Timaliidae (e.g. Sharpe 1883).

Roberts (1922: 227), a notorious generic splitter, paved the way for the eventual complete dissociation of *pycnopygius* from *Chaetops* by creating a new genus for it, *Achaetops*, on the basis of "its much shorter legs, and softer feathers on the crown". Nevertheless, *Achaetops* was still closely associated with *Chaetops*, and usually also with the Boulder Chat *Pinarornis plumosus*, in the family Timaliidae (e.g. W. L. Sclater 1930), a treatment that continued through the first four editions of Roberts' *Birds of South Africa* (Roberts 1940, McLachlan & Liversidge 1957, 1970, 1978).

Meanwhile, however, undercurrents arose that were to carry *Achaetops* and *Chaetops* off in different directions. These may be traced back to a few simple unsupported declarations by Delacour (1946: 11):

Nous avons exclu du groupe des Timaliins un certain nombre d'oiseaux africains qui y avaient été encore incorporés par W. L. Sclater [1930] et par D. A. Bannerman [1936]. Ce sont les espèces suivantes: *Pinarornis plumosus* est un Turdiné voisin de *Cercotrichas podobe*, apparenté sans doute aux *Copsychus*. *Chaetops frenatus* est un Traquet proche de *Saxicola* et de *Cichladusa*. *Achaetops pycnopygius* est un Sylviiné voisin des *Melocichla* . . .

Not one of these associations has borne up under scrutiny (Olson 1984, 1990, this study). It was thus Delacour who was responsible for *Chaetops* being placed in the Turdidae with the thrushes—I erred (Olson 1984) in crediting Ripley (1952) with being the first to do this, as he doubtless took his cue from Delacour. On the basis of its syrinx, *Chaetops* is definitely not a thrush (Olson 1984). Delacour's suggestion of a relationship between *Achaetops pycnopygius* and the Moustached Warbler *Melocichla mentalis* is evidently what led White (1960: 20) to associate these two species with the Grassbird *Sphenoeacus afer* and to suggest "that their relationships would be better expressed by placing all three species concerned in the genus *Sphenoeacus*". Not long thereafter, what had once been three different genera became the "*Sphenoeacus mentalis* superspecies" (Hall & Moreau 1970: 159), a curious term considering that *S. afer* is the type species of the genus. This is an outstanding example of the evils of "compiler taxonomy", combined with abuse of the so-called superspecies concept, both of which have had a detrimental effect on modern ornithological systematics. Although White's treatment was followed by numerous authors apart from Hall & Moreau, it is fortunate that recent influential works (e.g. Maclean 1985, Traylor 1986) have reverted to the use of three monotypic genera for these species.

So we have seen the Rockrunner saltate from being congeneric with *Chaetops*, to a monotypic genus of Timaliidae, to a monotypic genus of Sylviidae, to congeneric with *Sphenoeacus*, to a superspecies with *Melocichla mentalis* and now back to being a monotypic genus of Sylviidae, with virtually no discussion of characters or the injection of new systematic information of any kind. Except for its generic and English names, the former association of this species with *Chaetops* has become totally obscured.

### Material examined

Skeletons: *Bradypterus luteoventris* USNM 318312, USNM 318313; *Dromaeocercus brunneus* MRAC 50616; *Amphilais (Dromaeocercus) seebohmi* USNM 432211; *Melocichla mentalis* UMMZ 208325, UMMZ 218573; *Achaetops pycnopygius* TM 32629; *Chaetops frenatus* USNM 558653; *Sphenoeacus afer* USNM 558700, USNM 558701; *Megalurus timoriensis* USNM 561990, YPM 7089; *Bowdleria p. punctata* NMNZ 22848; *Pinarornis plumosus* ROM 121100; *Turdoides jardineii* USNM 558675.

### Results

Examination of osteology of *Sphenoeacus*, *Achaetops*, and *Melocichla* discloses that these are sufficiently distinct from one another as to rule out any two of them as being congeneric. *Sphenoeacus afer* differs from the other two in the proportionately much shorter rostrum and premaxillary symphysis, the arched ridge of the dorsal nasal bar (culmen), narrower interorbital bridge, the distinctly notched and little inflated ectethmoid, and much broader and rounded zygomatic processes. The overall resemblance of the skull of *S. afer* is actually closer to the timaliid *Turdoides* than to either of the "sylviids" with which it has been allied. The manubrium of the sternum is much shorter in *S. afer* than in either *Melocichla* or *Achaetops*. Although the skulls of *S. afer* and *Melocichla* are about the same size, the leg elements of *S. afer* are much smaller, and the distal wing elements are markedly more reduced, the carpometacarpus being about half the length of the ulna versus well over half in *Melocichla*. Compared to *S. afer*, the tarsometatarsus of *Melocichla* is longer and not as robust, and in *Achaetops* the tarsometatarsus and tibiotarsus are much longer and more slender, with the distal end not strongly curved and the plantar crest less ossified. The skull and mandible of *Achaetops* differ strikingly from *Sphenoeacus* or *Melocichla* in the very long, narrow bill, longer and more slender mandibular symphysis, and narrower frontal area. In these respects and in the morphology of the tarsometatarsus, *Achaetops* was identical to *Chaetops*. In fact, I could find no osteological differences apart from size by which these two "genera" could be distinguished.

In plumage, *Achaetops* shares a light superciliary stripe and light malar stripe with *Chaetops* and also with *Sphenoeacus* and *Melocichla*. All but *Chaetops* have a black malar stripe as well, but this would be obscured in males of *Chaetops*, in which the entire throat is black. The breast streaks of *Achaetops* are seen in females of *Chaetops* (absent in *Melocichla* and only faintly indicated in *Sphenoeacus*). In both *Achaetops* and *Chaetops* the crown and back are heavily streaked (absent in *Melocichla*, back streaked but crown only faintly so in *Sphenoeacus*). *Achaetops* and *Chaetops* share a dark rufous belly that is absent in the other two genera, the rufous extending up onto the breast in *Chaetops*. They also share a strongly rufescent rump patch of loose, decomposed feathers, absent in the other genera. The pale tips to the rectrices of *Achaetops* (also in *Melocichla*) have become large white patches in

*Chaetops*, which is also unique in having white tips to the secondary coverts. Interestingly, the remicle in both *Chaetops* and *Achaetops* has a white tip, lacking in the other two genera.

In summary, the plumage of *Chaetops* differs from *Achaetops* in being strongly sexually dichromatic, in the more extensively rufous underparts, expansion of the white tips of the rectrices and the addition of white to the secondary coverts, and in the black throat of males. Although there is no real difference in the "softness" of the crown feathers, the tarsometatarsus is proportionately longer in *Chaetops* (44% vs. 37% of wing length), as Roberts (1922) maintained, although such variation in tarsal proportions occurs commonly within numerous other accepted genera of birds.

Both *Chaetops* and *Achaetops* are obligate inhabitants of rocky outcrops and are apparently quite similar in behaviour (Maclean 1985). It should be noted, however, that the Boulder Chat *Pinarornis plumosus*, another rock-dwelling passerine in southern Africa, is quite dissimilar in syrinx and osteology and appears to belong among the "proto-thrushes" including *Myadestes*, *Neocossyphus*, *Stizorhina*, and *Modulatrix* (Olson 1990). Because there were no grounds for dissociating *Achaetops* from *Chaetops* in the first place, and because a close relationship between *Achaetops* and either *Sphenoecacus* or *Melocichla* is not supported by osteology, there is no reason not to regard the similarities in plumage, osteology, and habits of the rockjumpers as indicative of relationship, with *Chaetops* being a larger, more ornately plumaged derivative of *Achaetops*. This relationship is probably best expressed at the generic level, with *Achaetops* Roberts, 1922, becoming a junior subjective synonym of *Chaetops* Swainson, 1832.

This brings us back to the question of the familial relationships of the re-expanded genus *Chaetops*. When I showed that the syrinx of *C. frenatus* was not thrush-like (Olson 1984), I merely suggested that the genus be returned to the Timaliidae, where it had nearly always been placed previously. On the other hand, ornithologists have been content for some time to accept *C. pycnopygius* as a warbler, so placement of the genus in the Sylviidae would seem equally plausible. Unfortunately, these are the two most ill-defined and problematical of the larger taxa of Old World passerines and no diagnostic characters have been identified that would permit a definitive decision to be made at this point.

Irwin (1985: 99) concurred that *Chaetops* (*sensu stricto*) belonged in the Timaliidae, citing as diagnostic of that family a tail that is "moderately to well graduated with the outermost pair of rectrices sharply truncated and falling considerably short of the others". This is not a convincing character, however, considering that numerous species of presumed Sylviidae have similar tails (e.g. *Melocichla mentalis*). As remarked by Irwin (1985), however, there are relatively few timaliids in Africa, and in southern Africa there is only the enigmatic *Lioptilornis* (*Lioptilus* auct.) and *Turdoides*, the latter being an Asian genus that has radiated secondarily in Africa. As he notes, *Chaetops* has no resemblance to either of these genera, as is also borne out by osteology.

By contrast, the Sylviidae have radiated rather extensively in Africa, but likewise none of the African members of that family seem obviously related to *Chaetops*.

*Chaetops* is very distinct osteologically from *Turdoides*, but that genus differs considerably from various other Timaliidae as well. As shown here, *Chaetops* is also very different osteologically from either of the genera of Sylviidae (*Sphenoeacus* and *Melocichla*) with which *Achaetops* has been associated. An informed solution to this systematic problem cannot be had without a great deal more study using various lines of evidence. Although some core group of Asian genera in the Timaliidae are probably monophyletic, the family has long been regarded as something of a wastebasket, so that the placement of an outlying genus in the Timaliidae carries with it a certain implicit ambiguity. For this reason, it is preferable to maintain *Chaetops* (including *Achaetops*) in the Timaliidae, rather than transferring it to the Sylviidae, which might convey a misleading impression of knowledge that we do not yet possess.

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## IN BRIEF

# Differences in tarsal length between adult female Montagu's and Pallid Harriers: an easy method to separate specimens

by William S. Clark & Roger Clarke

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Adult females of Pallid Harrier *Circus macrourus* and Montagu's Harrier *C. pygargus* are often misidentified in museum collections as the other because of their similar plumages. Both have dark brown upperparts, buffy to creamy, heavily streaked underparts, and similar tail patterns. Adult males and juveniles differ between species and are rather easy to distinguish.

Some differences between the species, especially adult females, have been pointed out by Svensson (1971) and illustrated in Bruun *et al.* (1986). These differences, as well as some new ones, are summarized by Forsman (1995). However, none of these references mention the difference in leg lengths.

One of us (WSC) noticed, from observing Pallid and Montagu's Harriers perched on bare ground near each other, that Montagu's appear to have much shorter legs, resulting in a more horizontal perch attitude, compared to the more upright stance of Pallid Harriers.

To test if there was a clear separation between species of this measure that could be used as a species indicator, we measured the tarsal length of a large sample of adult female specimens in the British Museum