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Source: Bulletin of the British Ornithologists' Club, 143(4): 554-558

Published By: British Ornithologists' Club

URL: https://doi.org/10.25226/bboc.v143i4.2023.a7

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Kenyan records of an unnamed Riparia martin first discovered in the highlands of Ethiopia

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Received 10 May 2023; revised 24 July 2023; published 4 December 2023 http://zoobank.org/urn:lsid:zoobank.org:pub:C3A42BD1-A157-45C9-AFD7-817A1F3B081A

Summary.—We provide field notes, photographic and audio documentation of an unidentified *Riparia* martin from high elevation on Mount Elgon, in western Kenya. We show that the birds differ in appearance and vocalisations from the otherwise similar, sympatric Plain Martin R. paludicola ducis, and that it appears to represent the same taxon as the unidentified martin recently documented in the highlands of Ethiopia.

Between 2013 and 2019, Gedeon & Töpfer (2021) observed a small Riparia martin nesting at high elevations in Ethiopia which they were unable to identify. The birds most closely resembled Plain Martin R. paludicola but differed in several ways, including the more extensively white underparts and distinctly grey-washed upperparts, as well as in their vocalisations. Documenting their observations, the authors noted sympatry with Plain Martin while maintaining reproductive isolation, and proposed that the birds comprised a distinct but unnamed taxon.

On 18 March 2023, with no prior knowledge of the observations in Ethiopia, we observed a colony of martins (hereafter 'Elgon martin') at 3,100 m on the east slopes of Mount Elgon, west Kenya (01°4'11"N, 34°40'16"E), which resembled Plain Martin but with several key characters at odds with that species, including different vocalisations. Additional observations and photographs, including of a small flock foraging over moorlands at 3,400 m, were obtained on 1 April 2023 by VJI, confirming the field marks distinguishing them from Plain Martin.

Collectively, our field notes and media suggest strongly that the Elgon martin is conspecific with the unidentified Riparia documented by Gedeon & Töpfer (2021) in highland Ethiopia. Here we detail our observations of this apparently unnamed taxon in Kenya. Our audio recordings were made using a Roland R-05 digital recorder and ME-66 Sennheiser microphone in calm conditions. They were reviewed using Syrinx software (Burt 2006) and archived in the Macaulay Library under catalogue numbers with the prefix 'ML', while comparative audio material (see Fig. 3) was also sourced there. Additional recordings of the Elgon martins not shown in Fig. 3 are archived under the catalogue numbers ML 550233001, ML 551881281, ML 551881311 and ML 551881321.

Colony characteristics

The Elgon martins were found prospecting / nesting in the exposed earth of a vertical roadside bank in subalpine habitat typical of the region, with vegetation in the environs comprising a mosaic of grass (Festuca, Agrostis, Themeda and Cymbopogon spp.) and shrub (Erica, Protea and Calluna spp.) cover, with pockets of stunted trees. We estimated there to be no more than a dozen martins present among a small group of Black Saw-wings Psalidoprocne pristoptera, which may also have been nesting in the bank. The bank supporting the colony extended c.120 m along a straight section of road and was nowhere more than 2 m in height (Fig. 1). The colony was confined to an area spanning no more than 8–10 m in



Figure 1. Roadside bank supporting a nesting colony of the unknown martin Riparia sp. (and possibly Black Saw-wings *Psalidoprocne pristoptera*) at 3,100 m on Mount Elgon, western Kenya, 1 April 2021 (Victor J. Ikawa)

the central section of the exposed bank, and the burrows were partly concealed beneath an overhanging cover of grasses and forbs.

Field characters

We mostly observed the martins in flight around the colony, although they visited the burrows occasionally, or perched briefly in the dead tops of small trees on the opposite side of the road. They were always in company of Black Saw-wings and were intermittently present around the colony for short periods (up to c.15 minutes), sometimes disappearing for as long as 40 minutes.

Our initial views were of a small martin lacking white tail spots and which most closely resembled Plain Martin. The lower underparts, however, appeared particularly bright white, becoming pale, dirty greyish white on the flanks, breast and throat, which parts are warm brown in Plain Martin (Zimmerman et al. 1996). The upperparts were greybrown, palest on the uppertail-coverts (Fig. 2) and much colder-toned than the warm brown upperparts of Plain Martin. More prolonged views revealed what appeared to be rather blackish underwing-coverts contrasting strongly with paler flight feathers, and, in bright light, a faint buff tone and faint dark streaks on the throat and breast.

An additional feature evident in the images included an extension of the pale tones on the throat and breast to the ear-coverts, making the bird appear pale-cheeked. This accentuated the dark lores and crown, giving the birds a contrastingly masked and capped appearance at some angles. In Plain Martins we have observed previously, the ear-coverts

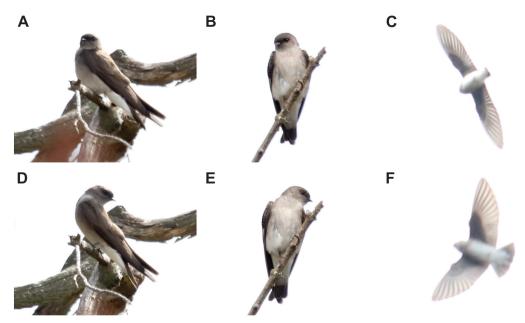


Figure 2. Elgon martins Riparia sp. in lateral (A, D), frontal (B, E) and in-flight views (C, F), showing extensively white underparts, pale grey cheeks and cold-toned grey-brown upperparts; Mount Elgon, western Kenya, 18 March and 1 April 2023 (Victor J. Ikawa)

are a warm brown like the throat and breast, and do not contrast markedly with the lores and crown.

Audio recordings

The main call of the Elgon martins, heard while we stood near the colony, was unfamiliar to us: a short, chittering trill with a swift-like (Apus sp.) quality, which we interpreted as an alarm call (Fig. 3A). It was wholly unlike the sharp, single-note alarm call of Plain Martin when disturbed at a colony (Fig. 3B). Other calls made by the Elgon martins included short whistled one- and three-part strophes given in flight (Fig. 3D-E), which too were unlike the typical 'purring / churring' flight calls of Plain Martin with which we were familiar. Lastly, a short nasal song phrase terminated by a soft click (or double-click; Fig. 3F) was made by the Elgon martins while perched, and has no known analogous vocalisation in the repertoire of Plain Martin.

Discussion

On reviewing the images and sonograms of the unidentified martins from Ethiopia in Gedeon & Töpfer (2021), it immediately was clear that the Elgon martins are likely to be conspecific with that taxon. They differ from the sympatric Plain Martin subspecies R. p. ducis, but are consistent with the Ethiopian birds in appearance and voice. Plumage features shared with the latter include the extensively white underparts (the lower underparts being especially bright) and pale dirty buff throat and breast without brown tones, combined with pale ear-coverts and absence of warm brown coloration on the upperparts. The pale cheeks provide a clear and distinctive field mark distinguishing the Elgon martins from Plain Martin, which has brown cheeks, lacking strong contrast with the crown and lores (Zimmerman et al. 1996, Stevenson & Fanshawe 2020). It should be noted that the martins

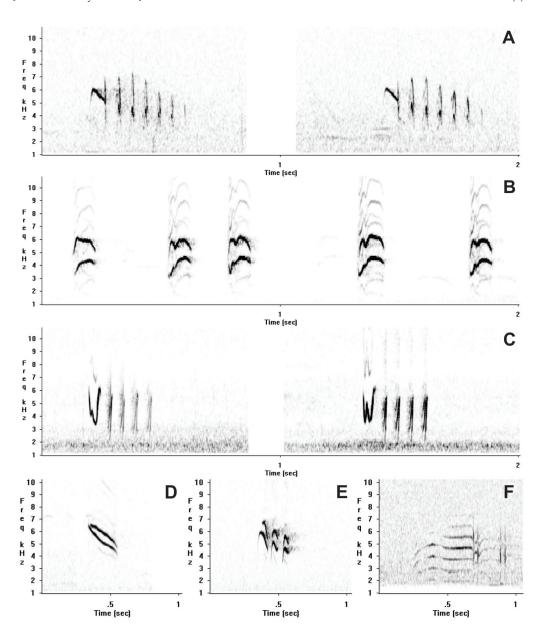


Figure 3. Alarm (trill) calls of the Elgon martins Riparia sp. (A: ML 549606191; James E. Bradley) compared to alarm calls of Plain Martin Riparia paludicola ducis (B: ML 549607811; James E. Bradley) and Grey-throated Martin R. chinensis (C: ML 224442131 and ML 224442041; © S. Toner; see Discussion), with additional flight calls and nasal song phrase of the Elgon martins (D: ML 551881311, E: ML 551881331 and F: ML 551881291; James E. Bradley).

observed in Ethiopia by Gedeon & Töpfer (2021) were compared with R. p. schoensis, the local subspecies of Plain Martin in the Ethiopian highlands (Ash & Atkins 2009). While it differs from R. p. ducis in Kenya by averaging paler overall (Keith et al. 1992), this is trivial compared to the differences between the unidentified Elgon (and Ethiopian) martins and either R. p. schoensis or ducis.

In addition, the trill alarm call of the Elgon martins is unlike that of Plain Martin, but is indistinguishable from the 'trill call' documented for the unidentified martins in Ethiopia (Gedeon & Töpfer 2021). The same is true for both the three-part strophe given in flight (Fig. 3E) and the nasal song of the Elgon martins (Fig. 3F), which are consistent with vocalisations made by the birds in Ethiopia referred to as the 'call' and 'squeak call', respectively (Gedeon & Töpfer 2021).

Our observations are fully consistent with those of Gedeon & Töpfer (2021) and we concur that these Riparia cannot be referred to Plain Martin. Furthermore, they are sufficiently different from that species to likely involve an undescribed taxon. To our knowledge, there are no known Riparia taxa in East Africa, or indeed sub-Saharan Africa, that show the same combination of phenotypic and vocal characters.

Outside the African region, however, there are some similarities between Grey-throated Martin R. chinensis of South-East Asia and the Elgon (and Ethiopian) martins. First, a close structural similarity in alarm calls (Fig. 2A, 2C) suggests some affinity, specifically a sharp introductory note blending into a short chittering trill. Second, Grey-throated Martin is described as having an off-white to buff chin / throat (del Hoyo et al. 2020) as well as a lack of contrast between the throat and ear-coverts (Brazil 2009), both features that align well with the Elgon (and Ethiopian) martins. While the similarity in alarm calls suggests the undescribed Riparia may be more closely related to R. chinensis than R. paludicola, the main vocalisation of Grey-throated Martin (e.g., ML 531856161) differs noticeably from any vocalisation of the Elgon / Ethiopian martins, ruling out the possibility of conspecificity.

Acknowledgements

Don Turner drew our attention to Gedeon & Töpfer (2021). The Macaulay Library and Sarah Toner made available audio recordings of Grey-throated Martin. We are also grateful for very helpful comments provided by two referees.

References:

Ash, J. S. & Atkins, J. 2009. Birds of Ethiopia and Eritrea. Christopher Helm, London.

Brazil, M. 2009. Birds of East Asia. Christopher Helm, London.

Burt, J. 2006. SYRINX-PC. Version 2.6i. Univ. of Washington, Seattle, WA.

del Hoyo, J., Collar, N. & Kirwan, G. M. 2020. Gray-throated Martin (Riparia chinensis), version 1.0. In del Hoyo, J., Elliott, A., Sargatal, J., Christie, D. A. & de Juana, E. (eds.) Birds of the world. Cornell Lab of Ornithology, Ithaca, NY. https://doi.org/10.2173/bow.gytmar1.01 (accessed: 10 July 2023).

Gedeon, K. & Töpfer, T. 2021. Is there an undescribed martin (Hirundinidae: Riparia) in Ethiopia? Bull. Afr.

Keith, S., Urban, E. K. & Fry, C. H. (eds.) 1992. The birds of Africa, vol. 4. Academic Press, London.

Stevenson, T. & Fanshawe, J. H. 2020. Birds of East Africa: Kenya, Tanzania, Uganda, Rwanda and Burundi. Second edn. Christopher Helm, London.

Zimmerman, D. A., Turner, D. A. & Pearson, D. J. 1996. Birds of Kenya and northern Tanzania. Christopher Helm, London.

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