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Systematic Notes on Palearctic Birds. No. 31 Sylviinae¹: the Genus *Leptopoecile*

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GENUS *LEPTOPOECILE*

The genus *Leptopoecile* was erected by Severtzov in 1872 for a remarkable new species that he was describing as *sophiae*. The genus remained monotypic until 1887, when Przevalski described a new species which he called *elegans*. Pleske (1890, *Wissenschaftliche Resultate Przewalski . . . Reisen, Zool. Theil, vol. 2, Vögel*, pp. 85–100), when discussing the birds collected by Przevalski, recognized that these two species were closely related but, believing that *elegans* was sufficiently distinct, erected for it the new genus *Lophobasileus*. No other species related to these two birds have been described since, and none are to be expected in the regions they inhabit or elsewhere.

Pleske mentioned that *elegans* differs from *sophiae* by having a brighter plumage, a more slender and longer bill, a more pointed wing, a shorter and less graduated tail, and is crested, whereas *sophiae* is not. However, the differences in the shape and size of the bill and in the wing formula are extremely slight, the difference in the shape of the tail is slight, and *elegans* is not appreciably brighter, both species sharing a similar and a curious and unique pigmentation characterized by a glossy blue rump and rich washes of vinous, chestnut, and purple elsewhere in the plumage. In view of the fact that this pigmentation sets them apart from all the other members of the Sylviinae and the

¹ For additional notes on the Sylviinae, see "Systematic notes on Palearctic birds," numbers 8–11 (*Amer. Mus. Novitates*, nos. 1684, 1685, 1691, and 1692; all published in 1954).

two species seem to have similar habits as far as I can judge by the scanty literature, it seems misleading to obscure their close relationship by dividing them into two monotypic genera. It seems to me that the differences by which they can be distinguished are of only specific importance, notwithstanding the fact that *elegans* is crested.

Baker has already come to the same conclusion and merged *Lophobasileus* with *Leptopoecile* (1930, Fauna of British India, London, Taylor and Francis, vol. 7, p. 203). Hartert and Steinbacher (1934, Die Vögel der paläarktischen Fauna, suppl. vol., p. 205) believe, however, that Baker was not correct. They mention the same differences noted by Pleske and add that the plumage is more silky in *elegans* and the rump feathers are longer, but I cannot see any essential difference in the length of these feathers and none in the texture of the plumage. In short, I believe that Baker was correct and that *Lophobasileus* should be merged with *Leptopoecile*.

Leptopoecile sophiae

A paper by Sudilovskaya (1935, Bull. Soc. Nat. Moscou, sect. biol., new ser., vol. 44, pp. 253–261) has added a great deal to our knowledge of this species. Prior to this study, the geographical variation and distribution were not well understood, though it was known that a dark form (*obscura*) ranges from southern Kansu through Sikang to southern Tibet, that another dark but paler form (nominate *sophiae*) inhabits northern Kashmir eastward to Ladak, and the Tian Shan and Kansu, and that a third and very pale form is found in the Kun Lun and southern foothills of the Tian Shan. There had been considerable confusion concerning the name and range of this last form, caused chiefly by Hartert (1907, Die Vögel der paläarktischen Fauna, pp. 400–402) when he mistakenly relegated *stoliczkae* to the synonymy of nominate *sophiae* and redescribed the pale form as *deserticola*. This question has been discussed by Hellmayr (1929, Field Mus. Nat. Hist., zool. ser., vol. 17, pp. 117–118), and Kinnear (1933, in Ludlow and Kinnear, Ibis, pp. 471–473) has shown conclusively that *deserticola* is a synonym of *stoliczkae*.

Sudilovskaya has shown in her review that four, not three, races can be recognized. These belong to two groups: a dark group consisting of *obscura* and nominate *sophiae*, and a pale group consisting of *stoliczkae* and *major*. In regions where representatives of the two groups occur, as in the Tian Shan and the Koko Nor Range of the Nan Shan, the two groups show sharp ecological preferences, the dark form inhabiting the higher altitudes and the pale form the foothills or lower elevations

along the rim of the desert. In the Kun Lun and the Astin Tagh only the pale *stoliczkae* occurs, and it inhabits the higher elevations also, but these mountains are more arid than the Tian Shan where the darker nominate *sophiae* occurs at similar altitudes. In Tibet, only *obscura* is found, and it inhabits both the mountains and the plateau.

Sudilovskaya gives an interesting map of the distribution of the species. My map (fig. 1) is similar to hers, but I have added to her records those of the specimens that I have examined plus other records taken from the literature. These were taken from Hellmayr (*loc. cit.*), Ludlow and Kinnear (*loc. cit.*), Bangs and Peters (1928, Bull. Mus. Comp. Zool., vol. 68, pp. 364–365), Riley (1931, Proc. U. S. Natl. Mus., vol. 80, art. 7, pp. 65–66), Meise (1937, Jour. Ornith., vol. 85, p. 519), Schäfer (1939, Proc. Acad. Nat. Sci. Philadelphia, vol. 90, p. 234), and Ludlow (1944, Ibis, p. 205; 1950, Ibis, p. 39; and 1951, Ibis, p. 565).

Figure 1 shows that the distribution follows an extremely interesting pattern which seems unique among Palearctic passerines, a ring of dark populations encircling one of pale populations. The pale ring is complete, but the dark ring is broken in southern Tibet between Ladak and the region of Gyantse. We know, however, virtually nothing about the distribution of bird life in this region, and it is possible that eventually the gap will be narrowed and perhaps closed altogether if suitable habitat exists. As *obscura* breeds in stunted and more or less sparse thorny bushes on the southern Tibetan Plateau, it is probable that similar habitat occurs in the intervening region west of Gyantse and east of Ladak.

Sudilovskaya mentions that she has examined specimens of two subspecies from four localities (present paper, fig. 1A–D), remarking that apparently it is “possible” to meet more than one subspecies as well as “intermediate forms” at the “same locality,” though they are “adapted for the most part to a different habitat.” However, before we grant that two subspecies breed at the same locality, we must take into consideration several factors not discussed by Sudilovskaya. She does not state the date, altitude, or precise locality at which these alleged sympatric forms were collected (perhaps data were not available or were faulty) but only a general region such as the Koko Nor Range, Zaidam, or the Amne Machin Shan. Faunistic contrasts are very abrupt in these regions, and date and altitude are important considerations, as we know that this species moves altitudinally with the season, nominate *sophiae* (a montane form) moving down to the plains near Kashgar in winter, according to Ludlow and Kinnear (*loc. cit.*). The possibility that some of the specimens examined by Sudilovskaya were visitors

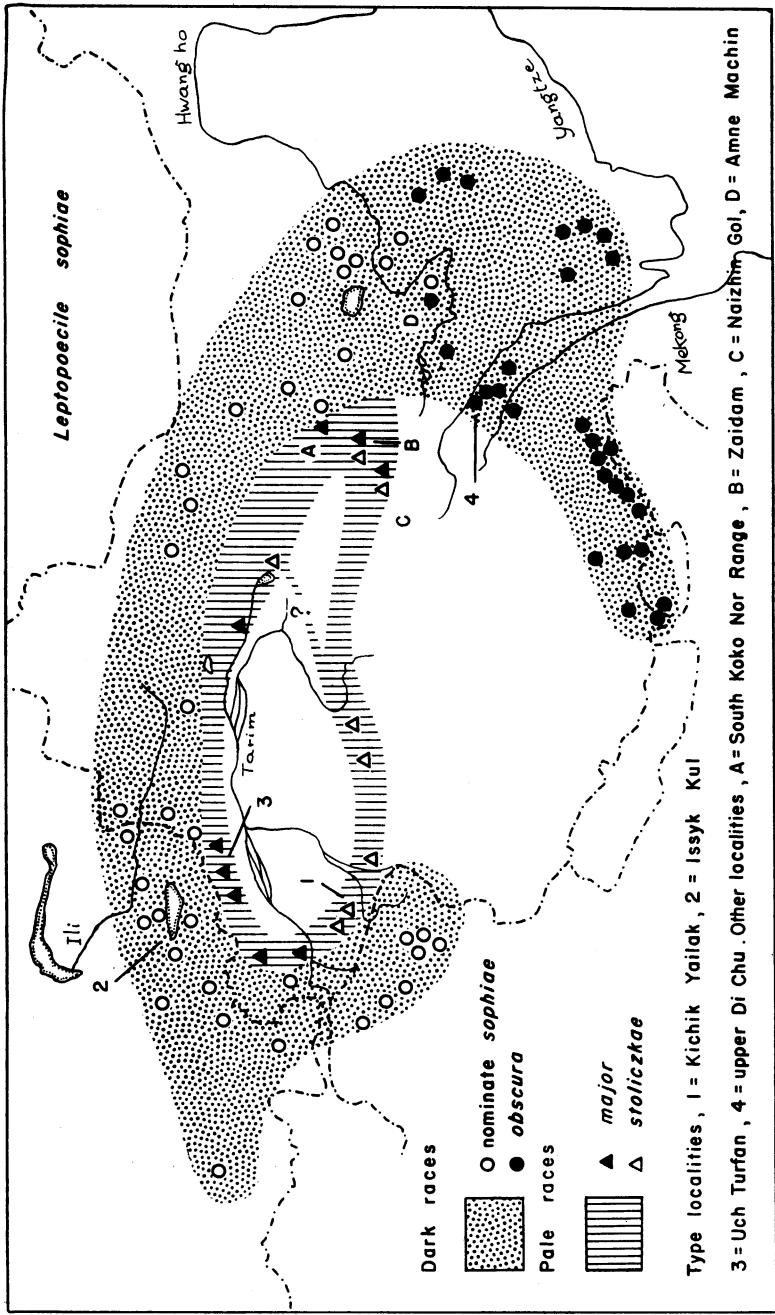


FIG. 1. Distribution of *Leptopoeecil sophiaae*. For discussion of localities A-D, see text.

cannot be dismissed, as she tells us that the majority were collected during the fall or winter. It is possible also that intermediate specimens could be referred to either of the two forms involved. *Stoliczkae* and *major* are not very sharply differentiated, and I suspect, judging by the distribution of these two races, that the populations of the Zaidam and Naizhin Gol are more likely to be intermediate than mixed. It is possible, moreover, that the specimens from the Zaidam and Naizhin Gol examined by Sudilovskaya were not local birds, as they appear to be those that were reported by Pleske (*loc. cit.*) collected in November and January. In short, we cannot assume that two subspecies breed at the same locality. On the contrary, evidence shows (see below) that the races grade into one another.

I have examined a series of six males collected in the Koko Nor region and neighboring Kansu that is intermediate between nominate *sophiae* and *obscura*. Three of these specimens are part of the long series collected by Beick and reported by Meise, and the others are three of the four males reported by Bangs and Peters from the Koko Nor barrier ranges. The latter were examined by Hellmayr (*loc. cit.*) who states that while they are different from *obscura* they are "decidedly darker throughout [than nominate *sophiae*] with the light abdominal area more restricted and of a deeper buff." Meise, who has also examined these specimens, believes they cannot be "distinguished" from nominate *sophiae*, but Hellmayr seems to be correct.

The six specimens vary somewhat individually, particularly below, but above they are all much too dark for nominate *sophiae*. In fact, almost all are identical with *obscura* in the color of the crown, back, and rump. Below, some are more extensively invaded by purple than others, but the center of the abdomen is not completely invaded by this pigment as it is in typical *obscura*. In this respect they are closer to nominate *sophiae*, but the reverse is true of the coloration of the upper parts. Hellmayr thought that these darker specimens might be referable to *major*, but he had not examined the latter, which is paler than nominate *sophiae*, not darker, and probably was misled by Menzbier's description of *major* which is not diagnostic of its true characters in any way. Before the study by Sudilovskaya, *major* had been considered to be invalid and a synonym of nominate *sophiae*.

The four races of *Leptopoeile sophiae* are the following:

1. *Leptopoeile sophiae sophiae* Severtzov, 1872, type locality, Issyk Kul. A dark race with the throat, breast, and flanks purple violet, center of the abdomen buff, rump lavender violet. Range: Ladak westward through Baltistan and Gilgit to the Pamirs and Tian Shan (west to the

Hissar Range near Samarkand), Ferghana, Alexander Range, and eastward along the Tian Shan (at higher altitude than *major*) to the Nan Shan, south to the region south of the Koko Nor and neighboring central Kansu, grading into *obscura* in these last two regions; occurring in the foothills and neighboring plains of Sinkiang in winter.

2. *Leptopoeile sophiae obscura* Przevalski, 1887, type locality, upper Di Chu [= upper Yangtze]. Darker throughout than nominate *sophiae*, purple pigment covering the whole of the under parts, rump bluish violet. Range: Kansu south of nominate *sophiae*, and Tsinghai from about the Amne Machin Shan, south to northern and western Szechwan, and through Sikang to northern Bhutan, northern Sikkim, and southern Tibet, west to at least the region of Gyantse.

3. *Leptopoeile sophiae major* Menzbier, 1885, type locality, Taushqan Darya near Uch Turfan. Distinctly paler and duller throughout than nominate *sophiae*, buff of the under parts paler and more extensive in area, invading the upper breast. Range: From about Yarkand northward and eastward along the southern foothills of the Tian Shan and its lower slopes to the foothills of the Nan Shan; probably grading into *stoliczkae* in the region of the Zaidam.

4. *Leptopoeile sophiae stoliczkae* Hume, 1874, no definite type locality given, but the type is from Gidjik [= Kichik Yailak, at the head of the Sanju River, western Kun Lun] according to Kinnear (1933, in Ludlow and Kinnear, *loc. cit.*). Synonym: *deserticola* Hartert, 1907, type locality, Qarasai, northern slope of the Astin Tagh. This is the palest race; the buffy area of the under parts is most extensive and reaches up to the base of the throat. Range: Kun Lun and Astin Tagh.

I would like to express my gratitude to Mr. J. C. Greenway, Jr., for lending me material from the collection of the Museum of Comparative Zoölogy. These specimens, in addition to the three discussed, include specimens of *major*, nominate *sophiae*, typical *obscura*, and of *L. elegans*.

Leptopoeile elegans

This species ranges from central Kansu, and Tsinghai from the southern Nan Shan and Koko Nor region, south to southern Kansu, northern Szechwan east to the region of Sungpan, and to about latitude 30° N. in Sikang, then westward to southwestern Sikang to about the borders of Tibet or about longitude 93° E. Its range is very similar to that of *L. sophiae obscura*, with which it occasionally associates according to Ludlow (1951, *Ibis*, p. 565).

The species was believed to be monotypic until Schäfer (1938, *Proc.*

Acad. Nat. Sci. Philadelphia, vol. 89, p. 385) described as *meissneri* a series from about latitude 30° N. in Sikang, stating that it was "much darker" above than the specimens of *elegans* Przevalski, collected by Beick in Kansu and neighboring Tsinghai. However, two paratypes of *meissneri* that I have compared to some of the specimens collected by Beick are scarcely darker. The difference is very slight, and furthermore the two paratypes match specimens collected by Rock in southeastern Tsinghai and extreme northwestern Szechwan not far from the upper Hwang ho, the type locality of *elegans* Przevalski. I consider therefore that *meissneri* is not separable from typical *elegans* and that the former belief that the species is monotypic was correct.

The population at the eastern end of the range (central Kansu) appears to be slightly paler, but in my opinion the difference is not of taxonomic importance. I have no material from the opposite end of the range (southwestern Sikang and southeastern Tibet), but these birds are typical *elegans* according to Ludlow. They had been referred to *meissneri* by Kinnear (1944, in Ludlow and Kinnear, *Ibis*, p. 204) but only tentatively as his material was inadequate, consisting only of three immature specimens. This was a "rather rash" assumption according to Ludlow, as shown by the additional material that he collected subsequently in the same region.

