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Systematic Notes on Palearctic Birds. No. 40 Caprimulgidae

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The following notes were made during a study of the Palearctic Caprimulgidae. They consist of reviews of Caprimulgus inornatus, C. europaeus, and C. aegyptius, and shorter notes on the distribution or validity of some forms in C. indicus, C. nubicus, and C. ruficollis. During this study a new species (centralasicus) was discovered from western Chinese Turkestan and was described and discussed in detail by me in an earlier paper (Vaurie, 1960) in this series.

I am greatly indebted to several institutions for the loan of specimens which included unique specimens and types. This very generous cooperation has been of much help to me, and I would like to express my appreciation to Mr. J. D. Macdonald of the British Museum (Natural History), Dr. G. Niethammer of the Alexander Koenig Museum in Bonn, Dr. J. Steinbacher of the Senckenberg Museum in Frankfort, and Dr. R. W. Storer of the Museum of Zoology of the University of Michigan. Mrs. B. P. Hall of the British Museum and Dr. H. Johansen of the Universitetets Zoologiske Museum of Copenhagen have also supplied some information.

Caprimulgus inornatus

The Plain Nightjar breeds in the dry belt south of the Sahara from French Sudan eastward to Eritrea, Abyssinia, Somaliland, and southwestern Arabia, and north in the Sahara to the Aïr and Ennedi Massifs. It is migratory, wintering south to the Gold Coast, southern Nigeria, Cameroons, northern Belgian Congo, Uganda, Kenya, and cen-

tral Tanganyika. It varies individually in coloration to an extreme degree, and this fact is well known. In the specimens that I have examined, the color varies from virtually blackish and very dark gray without a trace of red, to pale gray, vinaceous gray-brown, cinnamon, "foxy" red, and brick red. I have seen 55 specimens, and no two are identical. The term "color phase" has been used to describe this variation, but, as we are dealing with an entire spectrum, I agree with Hartert (1924, p. 25) that this term is "ill applied" in this species.

The individual variation is greater in some regions than in others, but, in the lack of other differences, it would be ill advised to recognize subspecies based on differences in coloration. Nevertheless, two color subspecies were described which I consider to be invalid. One was described by Bannerman (1932, p. 147) from Niger Territory which he named vinacea-brunneus, and the other by Niethammer (1957, p. 279) from the Ennedi which he named malbranti. The first was based on four specimens, and the second on eight. Four of these last specimens, which I have examined through the courtesy of Dr. Niethammer, fall within the range of individual variation of the population from northeastern Africa (the type locality of inornatus Heuglin, 1869). A paratype of vinacea-brunneus lent to me by the British Museum (Natural History) is more vinaceous than any specimen I have seen from northwestern Africa, but I have seen vinaceous birds from the Aïr along with gray and reddish ones, and these gray and reddish specimens are found also in northeastern Africa. I believe therefore that malbranti and vinacea-brunneus should be synonymized with inornatus Heuglin. I cannot find any evidence of geographical variation in size and fully agree with Hartert (loc. cit.) that this species appears to be monotypic.

Caprimulgus indicus

The Jungle Nightjar ranges from Transbaicalia and Japan south through China to India and Ceylon, and also inhabits the Palau Islands in western Micronesia. The northern race (jokata Temminck and Schlegel, 1847, type locality, Japan) is migratory and winters from southeastern China south to the Indo-Chinese countries and Malay Peninsula to the Greater Sundas and Philippines. It is replaced in the mountains of Indochina, the higher hills and mountains of Burma and Assam, and in the outer Himalayas by hazarae Whistler, 1935, type locality, Hazara, North West Frontier Province. Hazarae is not migratory and differs from jokata by being darker, smaller, and by having a more rounded wing tip.

Koelz has described recently (1954, p. 27) the population of the hills of Assam south of the Brahmaputra, naming them memnon, type locality, Lushai Hills. He states that they are darker than hazarae, more heavily streaked with black, and more broadly barred on the tail. I find, however, that birds from the hills south of the Brahmaputra do not differ from typical hazarae from the Himalayas and consider, therefore, that memnon is a synonym of hazarae. The material that I have compared consists of 17 specimens from the hills of Assam south of the Brahmaputra which include 10 of the 11 paratypes of "memnon," and of nine from the Himalayas which include two of the three specimens Whistler saw from Hazara. The two series vary somewhat individually, but the range of this variation is exactly the same in both and the series from Assam does not average darker than the one from the Himalayas. The measurements are similar. The wing length in the Himalayas measures 202, 209, 210, 213 in males, 194, 202, 206 in females, and 203, 207 in specimens that were not sexed; in the hills of Assam south of the Brahmaputra, 196, 202, 204, 205, 205, 206, 210 in males, 194, 196, 197, 200, 201, 204, 205, 208 in females, and 196, 198 in two unsexed specimens.

Mayr (1938, p. 312), who has discussed some of the differences that distinguish hazarae and jokata, raises the question: "Do the resident birds of Burma, Yunnan, and the Malay Peninsula belong to the Himalayan race hazarae or not? Comparing three specimens from Burma and the Malay Peninsula with six from the Himalayas, etc., I could find no decisive differences." Seven specimens that I have seen from the regions mentioned by Mayr show exactly the same range of individual variation exhibited by the series of typical hazarae that I mention above.

I am very grateful to Dr. R. W. Storer for lending me the paratypes of "memnon" and to Mrs. B. P. Hall and Mr. J. D. Macdonald for selecting and sending me a series from the Himalayas which includes the two paratypes of hazarae.

Caprimulgus nubicus

The Nubian Nightjar ranges from Palestine and western Arabia to northeastern Africa, where it inhabits Socotra Island, Somaliland, Abyssinia, and the Sudan south to Kenya. Two races were included by Hartert (1912, pp. 851–852) in the limits of the Palearctic region: tamaricis Tristram, 1864, type locality, Dead Sea depression, and nominate nubicus Lichtenstein, 1823, type locality, Nubia. The former inhabits Palestine and Arabia; the latter, the Sudan and Abys-

sinia. Three races are distributed outside the Palearctic region: jonesi Ogilvie-Grant and Forbes, 1899, on Socotra; torridus Phillips, 1898, in Somaliland; and taruensis van Someren, 1919, in Kenya. Mackworth-Praed and Grant (1952, p. 684) have synonymized taruensis with torridus, but the material that I have compared confirms the statement of van Someren that taruensis differs from torridus by being "more rufous on the wings and scapulars" and smaller. I cannot discern any appreciable difference on the scapulars, but the spots on the wings are darker and more chestnut in taruensis. The adult specimens I have measured have the following wing lengths: taruensis, males, 150 mm. (type), 151 (paratype), and 150 in one female; torridus, males, 154, 154, 155, 156, 157, 158, 159, 161 (156.7), females, 150, 152, 155, 156, 157, 157, 159 (155.1). It seems to me, therefore, that taruensis is perfectly valid. I cannot understand why it was synonymized with torridus by Mackworth-Praed and Grant who gave no reason for their action.

Caprimulgus europaeus

The European Nightjar is widely distributed and breeds in northwestern Africa and from Europe eastward to Lake Baikal, Outer and Inner Mongolia, and through Asia Minor and the Iranian region to northwestern India. It is highly migratory, wintering in tropical and southern Africa and returning to western Europe by the first week in May, though a few birds arrive a week or so earlier, to leave again by the end of August. The height of the migration is in May and September. Caprimulgus europaeus varies geographically, and five subspecies were recognized by Peters (1940, pp. 204-205), namely: nominate europaeus, meridionalis, sarudnyi, unwini, and plumipes. The validity of meridionalis and sarudnyi has been questioned, however, by Grant and Mackworth-Praed (1937, pp. 32-34), and more recently by Meinertzhagen (1954, p. 284), who consider that meridionalis and sarudnyi should be synonymized with nominate europaeus. Johansen (1955, pp. 405-407) has published some valuable notes which concern chiefly the population of Siberia, but the species has not been reviewed as a whole since 1912 (Hartert, 1912, pp. 846-850). I believe that only four subspecies should be recognized, as I consider that sarudnyi is best synonymized with nominate europaeus. The four subspecies are discussed below.

1. Caprimulgus europaeus europaeus Linnaeus, 1758, type locality, Sweden, with sarudnyi Hartert, 1912, type locality, Tarbagatai, as a synonym. This race is the darkest and seems also to be the largest,

though plumipes approaches it in size. It breeds in Europe and Siberia eastward to Lake Baikal and northeastern Outer Mongolia, but the southern limits of its range cannot be defined with certainty. In Europe, it grades southward into the smaller meridionalis in Austria and Hungary and apparently also in central Italy and perhaps in southern Ukraine and eastern Romania. In Siberia, true nominate europaeus breeds in the taiga, but as it ranges southward to the Altai and Tarbagatai and to a different habitat on the steppes, it is replaced by populations that Johansen (loc. cit.) states vary a great deal individually, representing what he calls a "mixed race" combining the characters of nominate europaeus and unwini (a paler race than nominate europaeus, with larger white spots on the primaries). The population from this zone, which undoubtedly represents one of secondary intergradation, was described by Hartert, who named it sarudnyi, but it is evident that the characters of this form are not constant and that its range cannot be defined satisfactorily. On the whole, however, sarudnyi is more similar to nominate europaeus than it is to unwini, according to Johansen, and should therefore, I believe, be synonymized with nominate europaeus. I have seen no breeding birds from Siberia nor found any in the Rothschild Collection that were identified as sarudnyi by Hartert. The collection contains a number of winter visitors to Africa which were identified as sarudnyi by persons unknown to me, but these specimens are, I find, identical or virtually so with nominate europaeus from its breeding range in Eu-

The range in northwestern Mongolia is very far from clear, but, according to Johansen, this region appears to represent another zone of intergradation, this time between *plumipes* and what he calls the "sibirischen *europaeus*-ähnlichen *sarudnyi*." He adds in a footnote that intermediates from this zone have received the name *dementievi*, a form described by Stegmann in "1949, Ochrana prirody, no. 6." This publication is not available to me, and *dementievi* seems to have escaped notice by everyone except Johansen.

In Europe, the situation is much less complex, but the populations are not uniform. Nominate europaeus grades into meridionalis, as stated above, and the variation in size appears to be clinal. There are also other evidences of geographical variation, namely, the population of southeastern Russia is slightly paler than that of northwestern Europe, and the birds of the British Isles differ from the latter by being both darker and smaller. The pale specimens from Russia consist of one male and two females collected at Orenburg on May 15–25, and

one male collected in May (no date) at Sarpa south of Sarepta on the Volga. Their wing length measures 198, 201 in the males and 198, 199 in the females. The specimen from Sarpa may have been a migrant as this region is included in the range of meridionalis by Spangenberg (1951, pp. 470–478). A lone female from Romania, a country that Hartert and subsequent authors include in the breeding range of meridionalis, has a wing length of 189 and seems too large to represent true meridionalis but may have been a late migrant. It is identical in coloration to the specimens from Orenburg and Sarpa and was collected on June 2 in eastern Romania at Malcociu, east of Tulcea and not far from the delta of the Danube.

A large series collected during the breeding season in England averages darker throughout, as well as smaller, than specimens from northwestern Europe. However, some individuals from England are identical with some from northwestern Europe, and the range of individual variation is too great, in my opinion, to warrant the nomenclatural separation of the English birds. Nevertheless, these population characters are of considerable interest, particularly the darker coloration which seems to be an instance of climatic adaptation. The dark birds of the British Isles represent one extreme in the geographical variation of the species, the opposite extreme being reached in arid central Asia where the skies are very open. It is curious that the differences shown by these birds have apparently escaped attention in the literature, as hitherto the population of the British Isles has been assumed to be typical nominate europaeus.

Fully adult individuals collected during the breeding season have the following wing lengths: Northwestern Europe (northwestern Russia, Scandinavia, and Germany), males, 190, 191, 192, 194, 196, 197, 198, 199, 199, 200, 200, 200, (196.3); females, 187, 191, 192, 192, 193, 196, 196, 196, 199, 199, 201 (194.8). England, males, 185, 185, 186, 190, 190, 193, 193, 194, 195, 195, (190.6); females, 184, 186, 187, 188, 189, 190, 192, 193, 194 (189.8).

2. Caprimulgus europaeus meridionalis Hartert, 1896, type locality, Greece. This race breeds in northwest Africa and southern Europe, including the larger islands of the Mediterranean, the breeding range extending to southern Russia, Asia Minor east to the Caucasus and south to Syria, and perhaps Palestine from whence I have seen a specimen collected on May 27 at Jericho. It differs from nominate europaeus by being smaller and by averaging slightly paler, more grayish, above and slightly less buffy below. In male meridionalis the white spots on the primaries show also a tendency to be larger. Meridionalis

is not quite uniform in coloration, because, as stated by Hartert (1896, p. 370), the populations are "darkest in the west, and towards the east they show a tendency to become paler." This is shown clearly by two good series that I have seen, one from northwest Africa which is darker and more richly colored than one from Greece.

Grant and Mackworth-Praed (loc. cit.) have synonymized meridionalis with nominate europaeus, because the specimens they compared "show that there is a complete overlap in measurements, and it would appear that C. e. meridionalis is not smaller than C. e. europaeus." However, I believe that the material they used was inadequate and not selected properly. They do not mention at what time of the year their specimens were collected, and we must suspect that individuals with a wing length of 200 and 202 do not represent meridionalis, as believed by Grant and Mackworth-Praed, but very probably migrant nominate europaeus. Furthermore, among the 26 specimens of nominate europaeus measured by these authors and compared to eight alleged meridionalis, 20 are from Great Britain, a population that, as I show above, is smaller than, and does not represent, true nominate europaeus.

The adult individuals of meridionalis collected during the breeding season that I have measured have the following wing lengths: Greece (topotypical), males, 175, 175, 179, 183, 186 (type of meridionalis) (179.6); females, 179, 181. Morocco and Algeria, males, 175, 176, 176, 178, 180, 182, 184, 185, 185, 186 (180.7); females, 176, 185. With the exception of two collected on May 13 and 14, the birds were taken from May 25 to July 10, the majority in June. I have also examined a male collected at Pendelicon, Attica, with a wing length of 190, but this bird was taken on March 19 and is darker than the other specimens from Greece. I believe it probably represents an early migrant of nominate europaeus.

Meinertzhagen (loc. cit.) has also synonymized meridionalis with nominate europaeus, stating: "Neither colour nor size characters can be upheld. See Grant and Praed, Bull. B.O.C., 1937, p. 32." However, while I agree that the differences in coloration (which were not discussed by Grant and Mackworth-Praed) are not sufficiently well marked or constant enough to be diagnostic, the difference in measurements seems sufficiently distinct to warrant the recognition of meridionalis. My measurements show no overlap whatever between meridionalis and true nominate europaeus and only a slight one between meridionalis and nominate europaeus from the British Isles. In most instances the difference in size is apparent to the eye without measure-

ments. The eggs of the two races can also be distinguished in size, according to Jourdain quoted by Grant and Mackworth-Praed, and it is interesting to note also that the two races have different winter quarters, *meridionalis* wintering chiefly in west Africa, whereas nominate *europaeus* rarely does so, wintering in east and south Africa.

3. Caprimulgus europaeus unwini Hume, 1871, type locality, Hazara, northwestern Himalayas. This race differs distinctly from nominate europaeus and meridionalis by being much paler. The white spots on the primaries of the male are larger and on the second and third primary extend well across the shaft to invade the outer web, whereas they very rarely do so in meridionalis and nominate europaeus. There are other slight differences in coloration, namely, the under tail coverts are usually more sparingly barred with brown, and the pale patches at the sides of the lower throat are whiter and usually more conspicuous. The wing length is intermediate between that of nominate europaeus and that of meridionalis, measuring in 10 males from the breeding range: 178, 180, 180, 181, 184, 184, 186, 189, 191, 192 (185).

This race ranges from Iran and probably eastern Iraq eastward through the Iranian region to northwestern India, and north from the Iranian region to southern Transcaspia, eastern Uzbekistan, Tadzhikistan, and the Kirghiz Republic to Semirechia, penetrating a little way into the western Tian Shan in Chinese Turkestan, at least to Kuldja in the Ili River Valley and the region west of Kashgar. Spangenberg (loc. cit.) has restricted the range of unwini to Baluchistan, Afghanistan, and India, and extended the range of a pale form which he calls sarudnyi to the greater part of Russian Turkestan. However, all the specimens that I have seen from Transcaspia and Russian Turkestan are unwini, and I believe with Johansen (loc. cit.) that Spangenberg has probably confused the true characters of the hybrid sarudnyi which is discussed above under nominate europaeus.

4. Caprimulgus europaeus plumipes Przevalski, 1876, type locality, Inner Mongolia on the northern bend of the Hwang ho, with dementievi Stegmann (1949, p. 109), type locality, Orok Nor, Outer Mongolia, as a synonym. This race is said to be very pale and similar to unwini, but "warmer," more "sandy," less grayish, in coloration, and to differ from unwini and the other two races by having the tarsus almost completely feathered. It probably averages slightly larger than unwini, as Hartert (1912, loc. cit.) states that the wing length of 15 adults of plumipes measures 180–195; it measures 192, 196 in two females that I have seen which appear to be plumipes. Its breeding

range is not well known but seems to consist of the eastern Tian Shan and of the deserts and semi-deserts of Inner and Outer Mongolia, north to the Gobian Altai and northwestern Mongolia, eastward perhaps to the Tola River Valley. The birds of northwestern Mongolia are probably darker and intermediate between true plumipes from the deserts and "sarudnyi" or nominate europaeus. They have been named dementievi.

The winter quarters of plumipes are unknown, but single birds have been collected on migration in a few instances in Russian Turkestan and Transcaspia, and I have examined two specimens which seem to correspond to the diagnosis given above. These two birds, both females, were collected one on May 3 at "Chir Pynty," not located but apparently in the eastern Tian Shan, and the other on October 5 at Cape Guardafui, at the northeastern tip of Africa. These records suggest that the migratory route and winter quarters of plumipes are probably the same as those of unwini, namely, westward and then south to eastern Africa.

Caprimulgus ruficollis

The Red-necked Nightjar breeds in the Iberian Peninsula and northwestern Africa from Morocco to Tunisia and consists of two very distinct races: nominate ruficollis breeding on the Peninsula and in Morocco, and desertorum in Algeria and Tunisia. The first wanders and is occasional in southern France and is recorded also from Malta, Sicily, Dalmatia, Madeira, and the Canaries, though this last record has been questioned. It occurs also in the Balearic Islands, at least occasionally, as there is a specimen in the collection of the American Museum of Natural History that was collected on May 8, 1930, by H. Grün on the island of Ibiza. This record is published here because Bernis (1955, p. 38) questions the occurrence of the species in the Balearics, and von Jordans (1928, pp. 262–336) did not include it in the list of the birds known from these islands. The specimen is an adult female, and a notation on its label shows that it was not in breeding condition.

Caprimulgus aegyptius

The Egyptian Nightjar inhabits the northern Sahara from the Mzab eastward to Egypt, Iraq, Iran, western Afghanistan, Transcaspia, and Russian Turkestan north to Kara Bogaz Bay on the east coast of the Caspian Sea, the southern and eastern coast of the Aral Sea and the desert south of the Chu River. The eastern limits of the

range are reached at about longitude 74° E. south of the Chu, about longitudes 69° to 70° E. in the valleys of the Syr and Amu Daryas, in southwestern Afghanistan, and in the region of Bampur in Persian Baluchistan. The distribution, however, is probably not continuous but local, the bird breeding in the more arid and coarse grasslands, deserts with some scrub cover, or even the bare desert. The species is migratory, arenicolor and nominate aegyptius wintering in northern Sudan, occasionally south to Lake No at latitude 9° 30′ N. by longitude 30° 28′ E., but the winter quarters of saharae are unknown, although they are probably in the Sahara.

Standard works recognize only two races: nominate aegyptius Lichtenstein, 1823, type locality, upper Egypt, and saharae Erlanger, 1899, type locality, southern Tunisia. The former is said to range from the Nile to Turkestan and is sandy gray in coloration above, whereas saharae is paler, more rufous sandy, less gray, above, and is said to range from the Nile westward. Spangenberg (1951, p. 479) has, however, recognized a third race, arenicolor Severtzov, 1875, type locality, lower Amu Darya, which I believe also is valid, although Hartert (1912, p. 853) has synonymized arenicolor with nominate aegyptius, and its validity has been questioned also by Ticchurst (1922, p. 412).

Severtzov described arenicolor as "much larger . . . wing almost 1½ [inches] longer . . . somewhat more greyish sandy" than nominate aegyptius, but I find that the difference in coloration is quite slight and not constant. This difference would not be sufficient to warrant the nomenclatural recognition of arenicolor, but the difference in size is well marked, the average wing length differing by nearly 20 mm., or about 10 per cent of the total wing length, and seems sufficient to warrant the recognition of arenicolor. I cannot confirm the differences in the size of the bill or wing formula mentioned by Severtzov.

Ticehurst (loc. cit.) questioned the validity of arenicolor, because he found that "specimens from Samarkand are no larger than Egyptian ones." However, some of his specimens from Egypt may have included migrant or winter visitors of arenicolor, and only birds collected during the breeding season in Egypt should be compared. In the specimens that I have seen, the wing length of breeding birds from Egypt measures 183, 190, 190, 192, 197 in adult males, 187, 194 in adult females, 192 in one immature male, 187 in one immature female, and 184 in one immature bird that was not sexed. Birds from Iraq, Iran, and Russian Turkestan measure 210 in one adult male, 201, 203, 206, 214+ in adult females, and 204, 214+ in unsexed adults, 196 in a subadult female, and 201, 201 in one immature male

and female; the seven adults in each series measuring 183–197 (189.7) in nominate aegyptius, as against 201–214 (207+) in arenicolor. I have seen also a female with a wing length of 227 which was collected in the winter in northern Sudan, on January 24, 1904, on the Nile between Shereik and Berber. Because of its great size, together with the fact that it is a darker, cooler gray than any breeding bird that I have seen from Egypt, I believe this individual was most probably a winter visitor of arenicolor. The measurements of the two races probably overlap to some extent, as Spangenberg (loc. cit.) has measured two individuals from Turkestan with a wing length of 193 and 195, but, even so, his 20 specimens average 209 in males and 208 in females.

The range of saharae is assumed to extend to the left bank of the Nile, but it is not clear just where this race and nominate aegyptius actually replace each other. The latter breeds in the delta and at Abu Zabal near Cairo, judging by the specimens I have seen, but, according to Meinertzhagen (1930, p. 325), saharae breeds also near Cairo, at Giza and in the Mogattam Hills. It is confusing to find the two races in the same region, as Meinertzhagen admits, but pending further study it is best to do as he has done and accept the Nile as "the dividing line between the breeding ranges of the two forms." The only specimen of saharae that I have seen from Egypt was collected at El Faiyum in May, 1864. The other specimens of saharae that I have examined are two immature birds taken at Gamar, 15 kilometers northeast of Tunis, on September 20, 1926, the type of saharae from southern Tunisia, and 19 birds from the Algerian Sahara collected in the region between Biskra and Oumach, in the region of Touggourt, and in the Mzab. Among the latter are two immature birds which are distinctly darker, more richly colored, less whitish, than the two young birds collected near Tunis which are very pale. These two darker birds from the Mzab were taken in the Oued en Nsa east of Ghardaïa on June 4, 1912, and at El Arich east of Guerrara on June 9, 1912. The difference between these immature birds prompted me to borrow additional material from Tunisia, but the only specimen I was able to see is the type of saharae which was most kindly lent to me by Dr. J. Steinbacher. It is an adult female collected on March 27, 1893, at "Oued Beschima" and matches perfectly the specimens from Algeria. It was apparently the only specimen taken by Erlanger's collector and was collected as it was leaving its nest. Saharae differs from nominate aegyptius and arenicolor by being paler above, more rufous sandy, less gravish.

This species is migratory and has been reported as migrating

through Turkestan, Iran, Iraq, Arabia, Egypt, and Tunisia. It is said to wander occasionally to Malta and Sicily. One specimen has been collected in England and one in Heligoland, and D. A. and W. M. Bannerman (1958, p. 163) report that one individual was seen on Cyprus the first week of April, 1957. All these migrants and wanderers, with the exception of those from Tunisia, have been identified as, or are asserted to be, nominate aegyptius on the incorrect assumption that saharae was not migratory and that arenicolor was indistinguishable from nominate aegyptius. However, the birds that migrate through Arabia and Iraq on their way eastward are most probably arenicolor, and those that wander to Malta and Sicily are most probably saharae, as these islands are not far from coastal northeastern Tunisia from whence I have seen two young birds. The bird seen on Cyprus was probably arenicolor. The two birds that reached England and Heligoland should be reëxamined, if the specimens are still in existence, as it is quite possible that they are arenicolor which is the most highly migratory of the three races. The winter quarters of saharae are unknown. In Tunisia, it arrives in the spring and leaves in September, according to Gouttenoire (1955, p. 32). The specimens that I have examined throw no light on the migratory movements, as they were collected from March 20 to September 20, the majority in April, May, and June. The collector noted on the labels of birds from Algeria that they were already in breeding condition in March and, as stated above, the type of saharae was collected on March 27 from the nest and had been incubating.

Caprimulgus aegyptius has also been recorded twice in Chinese Turkestan, Scully (1876, p. 133) reporting a specimen taken "about thirty miles" from Yarkand on or about July 28, 1875, and Ludlow (1933, p. 687) another collected at Goma, about 115 kilometers southeast of Yarkand, on September 7, 1929. However, as I have shown in an earlier paper (Vaurie, 1960) in this series, in which I have discussed these two birds in detail, the specimen reported by Scully may have been misidentified, and the specimen collected by Ludlow turned out to be a new species which I described and named centralasicus. Ludlow's specimen was kindly lent to me by the British Museum (Natural History), but I have been unable to find Scully's specimen which may no longer be in existence. The field notes supplied by Scully suggest, however, that his specimen may have been C. europaeus instead of C. aegyptius.

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