A Catalogue of the Birds in the Collection of the Bombay Natural History Society-18

(Eurylaimidae, Pittidae, Alaudidae)

HUMAYUN ABDULALI [Continued from Vol. 72(1): 131]

843 specimens of 81 species and subspecies, up to No. 909 in INDIAN HANDBOOK and registered No. 23957 are covered by this part.

EL Cymbirhynchus macrorhynchos siamensis de Schauensee & Ripley (Pran, south-west Siam) Black-and-Red Broadbill

1 o? Tenasserim Town, Burma. Wing 97; bill 23; tail 77

The subspecific identification of this and the next is based on the distribution in Peters's CHECK-LIST, Vol. 7, p. 7.

EL Cymbirhynchus macrorhynchos malaccensis Salvadori (Malacca) 1 o? Malacca. Wing 96; bill 24.5; tail 86

The subspecific identification is as mentioned under the last.

864 Serilophus lunatus rubropygius (Hodgson) (Nepal) Nepal Col-
lared Broadbill3:470

11:43 3 (1 juv.) 69 9 1 o? juv.

1 Rajhatkhawa, Jalpaiguri dt., W. Bengal; 2 Margherita, 1 Dening, Lohit Valley, 1 Roopchena, 1 Hungum, N. Cachar, Assam; 2 Melok R., below Wamakan 500 ft; 1 Rasa, 1Mansum, Chindwin Exp., Burma; 1 no data (ECSB).

Wing	Bill	Tarsus	Tail
3 7 7 82,84,85	13,14(2)	18(2),19	62,64,66
6 9 9 81-83 av.82	14-15	17-19	62-67 av. 64
(ін ♂♀ 83-88	from skull 15-17	c.21	66-71)

Specimen No. 9834 marked \eth shows white-tipped feathers on either side of the neck. The two juveniles (?) lack these spots as also the grey sheen on the lower plumage. There is a slight wash of rufous on the upperparts, but I cannot see 'the rufous of the rump extending further on to mantle' as stated by Ticehurst (JBNHS 39:559).

865 Psarisomus dalhousiae dalhousiae (Jameson) (Northern India,
probably near Simla) Longtailed Broadbill3:472

14:533 899 10?

Longview T.E., 1 Darjeeling, 1* Kurseong, W. Bengal, 1 Berrik, 2 Singtam, Teesta Valley, 1 Martam, Rongni Valley, 1 Rinchinpong, Sikkim;
 Margherita, Assam; 1* Dalu, 1* Tawmaw, 1* Nanyaseik, 1* Mansum, Chindwin Exp., Burma, 1* no data.

These birds can be divided into two groups, eight with underparts greenish, and six $(2 \circ \circ 4 \circ \circ)$ bluish. They show no differences in size, but the latter* (12 January to 31 March) are from Kurseong (1), and Chindwin (4), while the green (western ?) birds are dated between 26 November and 26 January. The eastern birds show slight traces (as do the others) of the character on which Hume separated *assimilis* from Thayetmyo, Burma, i.e. a small patch of blue on the nape *after* the black. This is usually concealed by the black feathers and its visibility is largely dependent on the make-up of the skin.

The specimens measure:

	Wing	Bill	Tarsus	Tail
22	99-102 av. 100	17-19	27-29	120(2),125,127
φç	99-103 av. 101	18-19	26-28	110-130 av. 119
(J Q	99-107	17-18	27-28	95-136)

The material available shows no difference in wing length between the sexes as suggested in IND. HANDBOOK (4:250) where there is no mention of the number measured.

866 Pitta nipalensis nipalensis (Hodgson) (Nepal) Bluenaped Pitta 3:444

14:833 (1 by pl.) 699 (2 by pl.)

1 Darjeeling, W. Bengal; 1 Sikkim; 2 Margherita, 1 Tezu, Lohit Valley, 1 Gusyong, 1 Heogagul, 1 Cachar, Assam; 2 Dalu, 1 Hpala, Chindwin;

1 Man, Yasu Valley, Pakokku; 1 Aka, Chin Hills, Burma, 1 no data.

In series, the females have paler underparts than the males, which also vary among themselves. Three males obtained by the Chindwin Expedition show dark centres to the scapulars and are slightly smaller than the others, including an unsexed bird in male plumage (No. 9075) from Man, Yasu Valley, Pakokku, Burma, further south.

	Wing	Bill	Tarsus	Tail
22	115-124 av. 120	26-28	52-53	50-58 av. 53.8
Chind	win			
55	115,118,119	26(2),27	50,51,52	49,50,55
φç	118-122 av. 120	26-28	51-56 av. 53.6	50-60 av.52.5
(3 9	116-129	22-26	51-59	61-68)

867 Pitta brachyura brachyura (Linnaeus) (Ceylon) Indian Pitta 28:7 \$ \$ 10 ♀ ♀ 11 0?

1* Kalka, 1* Simla Hills; 2† Bombay, 2 Khandala, 1 Ratnagiri, 1* Wamanpalli, Chanda, Maharashtra; 1 Alanki, 2* Karwar, N. Kanara, 1† Tekkadi, 1† Peermade, Periyar, 2† Shembaganur, 2† Kodaikanal, Palnis, 2 Travancore, Kerala; 1 Anuradhapur, Ceylon; 1† Pt. Calimere, 1 Kurumbapatti, Salem, Tamil Nadu; 1† Vizagapatnam Dt., A.P., 1* Baghowni, Tirhut, Bihar; 1* Kumaon, Naini Tal, 1* Sikkim, 2 no data.

Many years ago I had noticed some colour differences in the Pittas available in the Bombay collection and though additional material and opinions were obtained, it was not possible to take any definite decision. The present re-examination reveals the same differences, and while unable to offer any definite results, I am placing them on record for somebody else to follow up as and when opportunity offers.

They fall into 3 separate groups, all of which include specimens with dark streaks on the back:

(a) 7*: 1 & 4 \, \, 2 o?

These differ from both the other groups in having pale underparts, greyer and less brown lateral crown streaks, and bluish green backs. They share a shiny, pale blue rump with (c).

They include all the Himalayan specimens, the southernmost being from Karwar (July) and Chanda (27 May) and were all taken between 20th May (Sikkim) and 16th October (Kumaon).

After the migrations and breeding seasons are determined, Koelz's name *pulchra* (Bhadwar, Kangra, Punjab) may be applicable to the northern population.

(b) 9†: 13 49 9 40?

These share the darker underparts etc. with (c) but are separable from both (a) and (c) by the *darker* blue of the rump.

The northernmost are from Bombay and Vizagapatnam dist. (both Oct.) and there appears to be a concentration in the south-western hills. During my earlier examination in 1955, a bird borrowed from Ceylon was also included in this group, as is suggested by its capture, presumably on migration at Pt. Calimere. This and six of the others were taken in October, with one each in January and March.

(c) 12 (unmarked): 5 & 3 2 2 2 5 o?

Resemble group (a) in the pale blue of the rump, but otherwise similar to (b).

The distribution overlaps that of group (b) including Ceylon, now accepted as the type locality of nominate *brachyura*. Specimens were taken in January, February (2), April (2), May, July and October (2).

The southernmost breeding record is from near Bombay, while they are known to nest regularly in Dhulia, West Khandesh and near Mhow in Central India, south and north of the Satpura Range, in June and July. No breeding specimens are available to permit any attempt at localising the separate (?) groups.

The sexes show no differences in size nor do those with the colour differences.

	Wing	Bill	Tarsus	Tail
	ਰਾਰਾ 102-107 av 105	21-23	35-38	30-37 av. 34
	♀♀ 101-109 av.105	20-22	35-38	30-37 av. 34
(IH	♂♀ 101-111	from skull 22-26	35-39	36-40)

868 Pitta moluccensis megarhyncha Schlegel (Banka) Larger Bluewinged Pitta 3:452

IND. HANDBOOK (4:254) refers to a single record from Barisal, E. Pakistan (now Bangladesh) but in the same year (1970) Paynter, Bull.

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B.O.C. 90:118) said it was conspicuous in the Sunderbans in April, had enlarged gonads, and was probably breeding.

ELPitta moluccensis moluccensisP.S.L.Müller (Tenasserim)LesserserBluewingedPitta3 : 450

30?

1 Myingyan, Upper Burma (24 May 1902), 1 S. Irawaddy, 1 Copah, Malay Peninsula (6 Oct. 1880).

Wing 119, 120, 123 (118-127): bill —, 22, 25.5 (24-26 contra 29-34 in megarhyncha); tarsus 39(2), 40 (20-24); tail 36, 39, 41 (42-45).

The measurements of the tarsus in FAUNA are no doubt in error, but accepting those of the culmen, these birds would both be of the nominate race. They show very little red on the lower belly and undertail coverts cf. Pl. xiii in the BIRDS OF BURMA (Smythies, 1953).

869 Pitta sordida cucullata Hartlaub (Malacca) Hooded or Greenbreasted Pitta 3:455

13 Simla, NW. Himalayas.

Measurements under 870.

870 Pitta sordida abbotti Richmond (Nicobars) Nicobar Hooded or Greenbreasted Pitta 3:457

3:23 8 19 Campbell Bay, Great Nicobar

	Wing	Bill	Tarsus	Tail
1 3 cucullata	115 (109-119)	23.5 (20-22)	37 (38-42)	37 (39-42)
2 JJ abbotti	108, 110	22.5, 23	40,40	32, 35
1 Q abbotti	109	22	37	34
(J Q	103-110	22 90 90	40 00002	39)

These birds have the green upperparts suffused with olive contra clear green in No. 869. The head is darker, the white patch on the primaries smaller, and compared with the single specimen of *cucullata*, the blue on the belly more prominent.

EL Pitta gurneyi Hume (South Tenasserim) Gurney's Pitta 3:457 19 Bankachon, S. Tenasserim

Wing 98 (97-102); bill 22 (20-22); tarsus 39 (40-42); tail 43 (46-54).

ELPitta caerulea caerulea Raffles (Sumatra) Giant Pitta3:4471 & (by plumage) Bankachon, S. Tenasserim

Wing 153 (138-155); bill 34 (32-35); tarsus 58 (54-59); tail 51 (61-67).

871 Pitta cyanea cyanea Blyth (Arakan) Blue Pitta 3:448
1 & Lower Thoungyin Forest, Burma-Siamese Border.
Wing 116 (106-116); bill 23 (22-24); tarsus 42 (43-45); tail 56 (57-62).

872 Mirafra javanica cantillans Blyth (Bengal) Singing Bush Lark 3:334

4:288 19 10?

1 Bhimasar, Nakhtrana dist., Kutch; 1 Nadiad Town environs, Gujarat; 1 Dodi, Malwa Plateau, c. 1700 ft, Bhopal State, C.I.; 1 Cawnpore (cage bird). The males (4 Sept. and 9 Dec.) from Kutch (with developed gonads) and Gujarat and the cage bird from Cawnpore are paler and less distinctly marked than the female, both above and on the breast.

873 Mirafra assamica assamica Horsfield (Assam) Bengal Bush Lark 3:336

6:433 19 10?

2 Jagadhri, Ambala, Punjab; 1 Baghowni, Tirhut; 1 Rajputee Saran, Bihar;
2 Kaziranga, Assam.

The grey upperparts, and the markings on the head are quite distinct from those in *M. assamica affinis*. The birds from the Punjab are paler and less richly coloured than the others.

Measurements under No. 874a.

874 Mirafra assamica affinis Blyth (Southern part of the peninsula of India) Madras Bush Lark 3:339

23:1233 (1 juv.) 899 30?

(a) 1 Kalai, Trichinopoly, 2 Pt. Calimere, 2 Chitteri Range, 1 Kurumbapatti, 2 Harur, Tirthamalai, Salem District, Tamil Nadu; 3 Palkonda Hills, 1 Seshachalam Hills, 2 Koduru, Cudappah, 1 Kavur Taluka, Nellore District, A.P.; 1 Golapalli, Bastar.

(b) 2 Baramba, 1 Talchar, 2 Barkul, Chilka Lake, Orissa, 1 Nilgiri.

The birds in group (b) (except those collected in 1902 and badly foxed) have dark upperparts, with little or no trace of rufous. They are quite different from the dark grey of nominate *assamica* but resemble them in their noticeably heavy bills, and represent an intermediate population between *affinis* and *assamica*, closer to the former.

Birds from further south show more rufous on the upperparts, a character which is more pronounced in \Im No. 9187 from Trichinopoly. Jerdon also said that specimens from the Carnatic have a redder tinge than others from Midnapore and Ceylon. Specimens from the extreme south and southwest hills are under *ceylonensis* (q.v.).

Measurements under 874a.

874a Mirafra assamica ceylonensis Whistler (Colombo, Ceylon) Ceylon Bush Lark

9:33

1 Wadakkancheri, 3 Malakku, Kumdukadru, Trichur, Cochin; 2 Kutiani (Kutyani), 1 Thattakad, Kerala, 1 Cassimode, south(?) Travancore (J.P. Cook), 1 Aramboli, Cape Comorin.

I have already referred (in press) to the validity of this large-billed race, with and without rufous underparts, occurring in Ceylon and in a very restricted area in southernmost India.

		Wing	Bill	Tail
assamica	55	82,84,85 (2)	13.5-14.7 av.13.8	45,46(2), 47
	ę	81	13.6	43
	(39	82-84	c. 13-14	45-50)
affinis (a	50 (83-87 av. 84.6	12.2-13.5 av. 13	44-48 av. 45.8
				[303]

	Wing	Bill	Tail
(b) J J	78-85 av. 82	12.5-14 av. 13	41-46 av. 44.3
(IH	77-88	from skull 15-18	42-52)
affinis (a) $Q Q$		contract of the state of the	
(b) ♀♀	75-82 av. 78.7	12.5-15 av. 13	39-44 av. 41
(ін	75-82	13-17	39-45)
ceylonensis JJ	81-88 av. 84	13.1-14.7 av. 14	42-48 av. 45
microptera 7	76	invedged 13 jung sleden	43
(♂ ç	67-77	12-13	40-45)

EL Mirafra assamica microptera Hume (Thayetmyo) Burmese Bush Lark 3:340

13 Paukkaung, Prome District, Burma.

The single specimen is small but washed rufous above, resembling *affinis* from around Madras and agreeing with Hume's original description of *microptera*, *contra* three others from Mandalay (U.S. Nat. Mus. Nos. 44982/4) which are also small but greyer above and purer white below.

Measurements under 874a.

875/6 Mirafra erythroptera sindiana Ticehurst (Karachi, Sind) Sind Redwinged Bush Lark 3:342

16:1433 299 (1 juv.)

4 Ambala, 1 Chandigarh, Punjab; 3 Delhi; 2 Bulandshar, 3 Meerut, 3 Cawnpore, U.P.

Koelz's furva from Sihor, Kathiawar, is synonymised with sindiana in IND. HANDBOOK (5:7) but the lack of topotypes of both races only permits a recording that specimens from the Punjab and Delhi have wider pale margins to the feathers of the back, and are in series paler than those from further south. Those from Uttar Pradesh are old and badly prepared and are perhaps best left together.

The others which are placed under nominate *erythroptera* show differences of colour, but are in series darker.

No. 18228 from Ambala, marked "juvenile" is darker above. A juvenile from Cawnpore (No. 9152) has the head streaks broken into spots, and the rufous on the primaries extends much further towards the tips, than in adults.

The measurements are under 877.

877 Mirafra erythroptera erythroptera Blyth (Northern Deccan) Redwinged Bush Lark 3:341

21:1733 299 20?

2 Bhuj, 2 Kharirohar, 1 Chadva, 1 Kutch; 2 Vaghjipur, 1 Deesa, Palanpur,
1 Dalkhania, Amreli, Gujarat; 2 Narwer Fort, 1 Bhind, 1 Bhadarwar,
Gwalior, 1 Dodi, Malwa Plateau, 1 Sanchi, Bhopal; 1 Jabalpur; 1 Poona,
1 Kannad, Aurangabad, 2 Mukher, Nanded District, Maharashtra.

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Wing	Bill	Tarsus	Tail
sindiana 37 37 72-83 av. 80	12-13	21-24	45-53 av. 50.5
1 ç 70		20	44
(ін ♂♀ 73-84	from skull 13-15	21-23	46-56)
erythroptera 77775-82 av. 80	12-14	21-24	46-53 av. 50
(ін ♂♀ 75-84	from skull 13-15	21-23	47-55)

In sindiana the birds from Delhi and westwards have their wings average 81 mm contra 77.5 in the eastern birds.

The preponderance of males in both groups is noticeable and inexplicable.

As already indicated under 875, these birds show differences in colour. The southernmost is from Poona and it is unfortunate that the only specimens available from Point Calimere in Tamil Nadu where several *erythroptera* are said to have been handled by the Ringing Camps (JBNHS 68:458) are *M. assamica*.

EL Lullula arborea pallida Zarudny (Hills of Transcaspia) Wood Lark

18: Amara, Iraq.Wing 100; bill 12:7; tail 52.The subspecific identification is based on the locality.

878 Eremopterix grisea (Scopoli) (Gingee, S. Arcot) Ashycrowned or Blackbellied Finch Lark 3:353

67:43 ♂ ♂ (2 pull., 2 juv.) 19♀♀ 5 o?

Rawalpindi; 1 Thanessa, Karnal District; 1 Bhong, Indus River, 1 Bahawalpur, Punjab; 6 Delhi; 2 Meerut; 2 Bhinmal, 1 Pali, Jodhpur; 3 Jaithari, Bhopal; 1 Chadva, Bhuj, Kutch; 1 Radhanpur, 2 Patan, Mehsana district, 1 Pariaji, Kaira district, Gujarat; 1 Deolali, 1 Nasik, 1 Shil, Thana; 7 Santa Cruz, 1 Pali Hill, Bandra, 1 Bombay, 3 Panchgani, 2 Satara; 1 Bargi, 1 Karwar, 1 Shirgunji, S. Kunta, 1 Kanara; 1 Talewadi, Belgaum; 1 Wadakkancheri, 1 Trivandrum, 1 Trichinopoly, 1 S. Arcot, 1 Madras; 7 Cumbum Valley; 1 Koduru, S. Cuddapah; 4 Godavery Delta; 1 Nayagar State, Orissa; 2 Purulia, Manbhum, 1 Madhubani, 1 Baghowni, Tirhut, Bihar.

IND. HANDBOOK accepts no subspecies from over the wide range of this species, but the specimens/series from different areas show differences, which if supported by additional material would probably justify separation. Among the males, birds from Satara, Karwar and Kerala, are darkest above, while others from Bhong, Bahawalpur, Bhopal and Delhi, are the palest, several of the latter being marked *siccata* by Whistler. A single bird from Talewadi, Belgaum, has the upperparts brown and the upper surface washed with rufous, a character on which other subspecies have been described from the same area. When at the Yala Sanctuary in Ceylon (July 1967), I noted that they "appeared different from Indian birds".

The females show other differences. The two from Delhi are outstandingly palest.

	Wing	Bill	Tarsus	Tail
33	73-79 av.75	10-11	16-18	37-45 av. 41.5
(IH	74-80	from skull 11-13	15-17	37-44)
φę	72-76 av. 74.	5 10-11	15-18	36-42 av. 39.5
(IH	72-79	11-13	15-17	37-44)

879 Eremopterix nigriceps affinis (Blyth) (Karachi) Black-crowned Finch Lark 3: 355

9:688 399

4 Karachi, 1 10 m off Karachi (?); 3 Phalodi, Jodhpur State; 1 Kuar Bet, Kutch.

The two males and two females from Karachi, all collected by C.B. Ticehurst in 1918 have their upperparts paler than in the others. Shiv-rajkumar (*JBNHS* 66:625) refers to flocks and individuals seen in different parts of Gujarat and suggests migratory movements.

	Wing	Bill	Tarsus	Tail
22	79-85 av. 81.5	10-11	17-19	48-52 av. 50
₽ ₽ °	74,75,78	10(3)	17,17,18	45,47(2)
(ін	∂"♀ 78-83 fr	om skull c.12	16-17	46-51)

EL Ammomanes dunni eremodites Meinertzhagen (Sheikh Othman, Aden Protectorate, Arabia)

4:29 9 20? Siyahad, Arabia (St. John Philby, March 1940).

Wing 83, 88, 95(2); bill 12.5, 13.2, 13.5(2); tail 49, 51, 53 56.

No. 9394, wing 95, was identified at the Smithsonian Institution by Mr. Bond, who informs me that accepting Siyahad as at $25^{\circ}38'N$., $47^{\circ}05'E$., these records extend the accepted range of the species into eastern Arabia.

Ammomanes deserti

Most of the extra-limital part of the collection has been gone over by Ticehurst (?) and trinominally named, but it is not possible to link the identifications with any paper nor to confirm the groupings, particularly of *iranicus* and *phoenicuroides*, and I am not disturbing the identifications (except for three specimens of *orientalis* from Meshed, North Persia) and am only referring to the differences.

EL Ammomanes deserti cheesmani Meinertzhagen (Shatt-el-Adhain, Iraq) Desert Finch Lark

20? Shatt-el-Adhain, Iraq.

The two topotypes can be picked out from the others from Samara not very far away by the greater amount of pink on the upperparts.

Wing 96, 99; bill 12(2); tarsus 21, 22; tail 65, 66.

EL Ammomanes deserti isabellinus (Temminck) (Deserts of Aquaba, Arabia)

4:13 19 20?

2 Bait-al-Khalif, 1 Samara, Iraq; 1 mile 30, 1200' Kal Kerim(?), Persian Gulf (C.E. Capito 14-1-25).

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These are similar to *cheesmani* but less pink above. They are marked *fraterculus* ? which is synonymised with *isabellinus*, in Peters's CHECK-LIST.

Wing 94, 96, 100, 101; bill 12(2), 13,-; tarsus 20, 22, 23,-; tail 63, 64, 68(2).

EL Ammomanes deserti iranicus Zarudny (Hurmuck, Persian Baluchistan)

6:433 299

2 Amirabad, 2 Kalat Yussuf, 1 Birjand; 1 Tigat 4000', eastern Persia.

These birds are in series browner and less grey than those marked *phoenicuroides*.

All were collected by LaPersonne in December 1926 (2), January (1) and March 1927 (3).

	Wing	Bill	Tarsus	Tail
55	106,109 (3)	12-13.2	23-24	70,72,73,-
φç	101,102	12.5,13.5	22,23	68 (2)

Meinertzhagen (*Ibis* 1920:143) identified birds from Quetta as of this subspecies.

EL Ammomanes deserti orientalis Zarudny and Loudon ("lower mountains of southwestern Bukhara..... Kushka River, sporadic in northwestern corner of Persia; around the middle Amu Darya..).

3:23 3 19 Meshed, North Iran.

The birds collected by LaPersonne in February 1927 are slightly paler and sandier than *iranicus* and larger than *isabellinus* and may well be *orientalis* as indicated by Vaurie in BIRDS OF PAL. FAUNA p. 24. Paludan 1959, ON THE BIRDS OF AFGHANISTAN p. 141 refers to those from North Afghanistan as *orientalis* but says they are even paler than *cheesmani* from Salehabad and Kulmabad (?) in S.W. Iran. The topotypes of *cheesmani* available for comparison (*supra*) are however distinctly paler.

	Wing	Bill	Tarsus	Tail
ਠਾਠਾ	104,108	12,12	23,25	71,72
Ŷ	103	10.5	24	68

880Ammomanes deserti phoenicuroides (Blyth) (Kashmir) IndianDesert Finch Lark3:352

23:1188 999 30?

 Gudar-i-Ghichi, 3000', 2 Aliabad, 1 2000' Bandan; 1 Bali Komh, 2 Kunik, 3500' Seistan & Kain; 3 Kaidasht Pass, 7000', Kain, 1 Ab-i-Kahugan, 44 m. s.e. of Khawash, 4700' Persian Baluchistan; 1 Lokh, 100 m. south of Kalat, 1 Korak (Pelar), (180 m. s. by w. of) Kalat, Baluchistan; 1 Malkand, 1 Risalpur, N.W.F.P.; 2 Taxila, 1 Campbellpur, Punjab, 2 Manthar, Cholistan, 2 Bahawalpur Town environs, Bahawalpur.

Individuals from scattered areas, show differences in size and colour. According to Vaurie the birds from Seistan and Persian Baluchistan should be *iranicus* but they are marked *phoenicuroides* by Ticehurst and agree better with them. rightarrow No. 9374 from Gudar-i-Ghaichi; Bandan, in Seistan, is dark above and shows a heavier bill than most of the others. Another \mathcal{O} No. 9373 Korak (Paler) 180 m. south by west of Kalat in Baluchistan resembles *orientalis* in colour but has a small 94 mm wing.

Among the others, two from Manthar, Cholistan, Bahawalpur, collected by Sálim Ali on 21 and 25 February 1939 are very pale above and approach *isabellinus/cheesmani*, except that they lack the pinkish tinge and have less rufous on the upper tail-coverts. Another (No. 9388) from the same place (27 February) is darker, while two more from Bahawalpur Town environs may well be included in the range of variation in others under *phoenicuroides*. Whistler (*JBNHS 42*:731) makes no reference to these differences, but in the course of the report Sálim Ali draws attention to the fact that Manthar falls into a part of the Great Indian Desert known as Rohi Cholistan, a distinct biotope separated from Bahawalpur town "by a depression known as the Hakra, the ancient bed of a bygone river'. Two more specimens obtained here are not now available, but there appears little doubt that an examination of these differences, particularly in the field, would be of interest.

881 Ammomanes cincturus Zarudny and Hartert (Mujnabad, eastern Iran) Blacktailed Finch Lark 3:351

3:13 299 Duzdap, 5000', Seistan, Iran (October 1926)

	Wing	Bill	Tarsus	Tail
3	99	10	23	56
Q Q	94,94	-,10	21,22	53,55
(39	97-102	Hartert, 92,93	FAUNA)	

In IND. HANDBOOK (5:13) this is referred to as a race of *phoenicu*rus, but they appear to be very different and are perhaps better placed in a separate species as in Peters's CHECKLIST.

882 Ammomanes phoenicurus phoenicurus (Franklin) (Between
Calcutta and Benares) Indian Rufoustailed Finch Lark3:350

36 : **22** ♂ ♂ **11** ♀ ♀ **3 o**?

2 Bhuj, Kutch; 1 Sanchi, Bhopal; 1 Kuno, Gwalior; 1 Harisal, Berar; 1 Bodeli, Baroda, 1 Dohad, Gujarat; 2 Sinnar, Nasik, 4 Bassein, Thana, 2 Dharamtar Creek, 1 Nagotna, Kolaba, 2 Panchgani, 1 Satara, 3 Ratnagiri; 6 Cumbum Valley; 3 Jabalpore, 1 Saugar, 1 Gondia, 1 Bhanupratapur, Kankar; 2* Orissa (* No. 18375 missing).

The material available shows differences of colour and the birds along the western side from Kutch southwards to Kolaba District appear slightly darker both above and below. The chins in the eastern birds appear distinctly paler. Two from Vengurla (the third is an old and dilapidated skin) maintain the darkness and differ in having the scapulars washed and tipped with rufous, a character absent in all the others.

In the absence of any birds from south of the Cumbum Valley, it is not possible to comment upon the validity of the next form *testaceus*.

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 $\[mathcal{P}$ No. 9355 from Harisal, Berar, dull brown all over, paler on the underparts and with almost no markings on the breast, is presumably a juvenile. The outer webs of all the primaries are bright rufous, distinguishing this from the others.

	Wing	Bill	Tarsus	Tail
33 99-	106, one 111, av. 104.5	12.5-15 av. 13.5	22-24	58-65 av. 61
	(ін 100-110	from skull 15-17	21-24	57-64)
φç	93-105 av. 99	12.5-14.5	22-24	53-60 av. 57.6
	(ін 98-104	from skull 15-16	21-23	52-63)

883 Ammomanes phoenicurus testaceus Koelz (Salem, Madras) Southern Rufoustailed Finch Lark

nil.

884 Alaemon alaudipes doriae (Salvadori) (Iran) Large Desert Lark 3:304

15:633799 (1 juv., 2 imm.) 2 o?

3 Shaiba, Iraq; 3 Lab-i-Baring, Hamunk, 1 Khwaja Ahmed, Seistan, Iran;
4 Karachi; 1 Khorda, Pachaw, 1 Kharirohar, 1 Nir, Great Rann, Kutch;
1 Yazman, Bahawalpur.

According to Peters (1960, 9:39) and Vaurie (1959), all these should be of the same race but two of the three from Iraq are paler above and have a pale rufous wash which immediately separates them from the others. They also differ in the irregularity and almost complete absence of the dark bar across the white of the secondaries, a character shared with the third from the same place, which is very worn and does not exhibit the rufous.

The juvenile from Karachi has no spots on the breast and very pale upperparts which are not barred with blackish brown as required in both the FAUNA and IND. HANDBOOK. The two immature females (Nos. 8882 and 8887) are less heavily spotted on the breast than the adults.

♂ No. 8881 from Khwaja Ahmed has the largest (137 mm) wing but is not larger than Iraqi or Indian birds in other respects, and they are all measured together.

	Wing	Bill	Tarsus Tail	
50	131-137 av.133	27.5-30	36 89-98 av. 94.5	
	(ін 126-137	from skull 30-35	34-37 79-99)	
φç	115,118,120,125	24.5,25,26,28.5	31,32 (2),33 78,89,90,92	
	(ін 116-119	from skull c. 27	30-32 c. 75)	

EL Calandrella cinerea brachydactyla (Leisler) (Montpellier, France) Short-toed Lark

1 o? : 1800' Siyahad, Arabia (St. John Philby, 17 March 1940) Wing 97; bill 12, tail 60.

The specimen No. 9397 was identified by Mr. Bond.

The white outer tail feathers, the smaller bill and the brown rather than rufous upperparts immediately separate this from *Ammomanes* with which it lay unnamed for many years. The original label is marked "in flock of 20/30".

EL Calandrella cinerea hermonensis Tristram (Mt. Hermon, Lebanon) Short-toed Lark

1 o? Shatt-el-Adhain, R. Tigris, Mesopotamia.

No. 9067 collected by C. R. Pitman on 16 October 1917 and marked *brachydactyla* has the upperparts more rufous than in any other and appears to be *hermonensis*.

Wing 89; bill 10; tarsus 20; tail 59.

885 Calandrella cinerea longipennis (Eversmann) (Sangora, Dzungaria) Yarkand Short-toed Lark 3:325

42:23 8 8 149 9 5 o? (1* pull.)

 Mohamedabad; 1 Robat-i-Mahi, 5 Maina, near Turbat; 1 Kidri near Kain, Iran; 1 Rekchak Hambar, Kolwa, Baluchistan; 4 Chitral Drosh, 4 Jagadhri, 1 Ambala; 3 Manthar, Cholistan, 1 Harunabad, 2 Yazman, 1 Chachran, 1 Bhong, Bahawalpur; 1 Bhinmal, 3 Jolar, Jodhpur; 1 Santawara, Gwalior; 1 Ratlam, C.I.; 2 Bhuj, 1 Mandvi, Kutch; 1 Patan, 1 Vagjipur, Mehsana, 1 Radhanpur, 1 Cambay City environs, 1 Deesa, Palanpur; 1* Tso Morari, Tibet; 1 Tarning Bashi, Pamirs.

The whole series shows considerable variation in colour, size and shape of bill, but those from Bahawalpur, Kutch, Gujarat, etc., have been marked *longipennis* either by Sálim Ali or Whistler, and with the material available, I am unable to suggest any amendment.

Some from Maina, near Turbat, paler above and with larger and flatter bills may be *artemesiana*.

Three from 4000', Chitral, collected by Capt. H. S. Fulton in October 1902 have a pronounced rufous wash on the upper surface, but their bills are not as heavy as in *dukhunensis*. Another (No. 9069) from Chitral Drosh dated 2 April 1903 does not show the rufous wash. No. 9104 σ from Tarning Bashi, Pamirs, collected by A. Sheriff was named *C. a. acutirostris* by Whistler.

The inner secondaries reach the tip of the wing in only 14 of the 40 adults and this is not a useful species character as suggested in IND. HANDBOOK (5:19). In both *longipennis* and *dukhunensis*, the fourth primary is distinctly shorter than the first three (as per FAUNA) and this appears to be a more reliable index.

Measurements under 886.

886 Calandrella cinerea dukhunensis (Sykes) (Dukhun) RufousShort-toed Lark3:326

18:1033 699 20?

2 Ghoti, Nasik, 2 Thana, 7 Salsette, 1 Poona; 1 Karupadanna, Cochin; 1 Godavery Delta; 1 Bhasandapur, Chilka Lake, Orissa; 1 Rajputtee Chupra, Bihar; 2 Calcutta Market.

There is some variation in colour but they are distinguished by (1) the heavier and darker streaking on the upperparts, each feather fringed with rufous, (2) the fulvous wash on breast and underparts being more

distinct than in longipennis and (3) the thicker bill.

Though both this and the last (885) are winter migrants from the north, all the northern specimens are *longipennis*, and the southern ones of this form!

 σ No. 19651 from Ghoti, Nasik, in worn plumage does not show the dark markings on the upper surface, but is identified on the basis of another obtained on the same day and place.

The specimens measure:

		Wing Bill	Tarsus Tail
longipennis	22	86-97 av. 92·3 10-12	20-23 50,55-62 av. 58.5
		(IH 95-100 from skull 12-15	5 20-21 54-65)
dukhunensis	55	92-103 av. 97 10-12	20-22 52-61 av. 57
		(IH 95-103 from skull 13-14	4 20-21 59-60)
longipennis	φç	84-92 av. 88 10-12	19-21 49-56 av. 49•4
		(IH 88-94 from skull 12-14	20-21 53-59)
dukhunensis	ç ç	86-99 av. 91 10-12 av. 10.5	20-21 50-56 av.53.5
		(IH 92-98 from skull 13-14	20-21 51-56)

Only three have the inner secondaries reaching the tip of the wing.

887 Calandrella acutirostris acutirostris Hume (Balakchi, upper Karkash Valley, north of Sughet Pass, Karakoram) Karakoram or Hume's Short-toed Lark 3:327

8:433 499

3 Chitral; 1 Darazpur, Punjab; 3 Satanwara, 1 Surwaya, Gwalior.

In series, these have darker upperparts and less pure white on the outer webs of the two outermost tail-feathers than those under *tibetana* (888).

Measurements under 888.

888 Calandrella acutirostris tibetana Brooks (Tibet, beyond Sikkim) Tibet Short-toed Lark 3:328

9:533 19 30? (1 juv.)

1 Darazpur, Punjab; 1 Debring, 1 Kashmir; 5 Tingri 14,000'; 1 Gyanka 13,500', South Tibet.

The juvenile from Tingri, South Tibet, collected by A. F. R. Wollaston on 27 June 1921, has pale whitish tips to all the feathers of the upperparts and tail, and rufous wash over the same area, most accentuated on the rump, and on the edges of the wing feathers.

		Wing	Bill	Tarsus	Tail
acutirostris	22	90,91,92,94	11,12(3)	20,21,22 (2)	58,60,61,65
(ІН		89,96	-	ex Paludan)	
tibetana	22	88-97 av. 91	•2 11(4),12	20.21(3),22	53-65 av. 57.8
(ІН		98-100	from skull 13-15	19-22	54,58-65)
acutirostris	φç	85,87,89,93	11(2),12(2)	20,21,22(2)	55(2),59,61
(ІН		84-90		ex Paludan)	
tibetana	ę	87	10	21	58
(ін		85-92	from skull 13-14	19-21	54-60)

888a	Calandrella	rufescens	persica	(Sharpe)	(Niris,	Iran)	Persian .
Short-to	ed Lark						3:332
3:2	3319						
2 L	ab-i-Baring, Lu	tak, Seistan	Delta, I	ran.			
	Wing		Bill		Farsus		Tail

FI	Cala	- J		(Sharpa) (Cantral	A .:. C	
	J Q	96,98,94	10,11,10	20,21,21	61,61,60	
				1 41040	1	

Yarkund and Kashgar to Mongolia)

1 o? Khotan, 4400'.

Wing 88; bill 10; tarsus 21; tail 60.

The bill is noticeably smaller than in both persica and heinei

EL Calandrella rufescens heinei (Homeyer) (Volga region) Lesser Short-toed Lark

16:23 3 1º 13 o?

10 Shatt-al-Adhain, 1 Bait-al-Khalifa, Samarah, 1 Twin Canals, 1 Zubier, 2 Felujah, 1 Tigris, Mesopotamia.

		Wing	Bill	Tarsus	Tail
2	33	95,96	10,10	20	61,62
1	ę	94	10	20	58
13	8ª 9	91-100 av. 97	10-11	20-21	56-64 av. 60
				A . 1	(1) 0 . 1017

No. 9125, 9127 and 9131 collected on 26th and 31st (2) Oct. 1917 have slightly paler upperparts and tend towards *seistanica* which are however yet paler.

889 Calandrella raytal adamsi (Hume) (Agore Valley, Hazara) Indus Sand Lark 3:331

17:1233 299 30?

1 Jammu State; 1 Attock, 3 River Jhelum, 1 River Sutlej, 3 Ambala, 4 Bahawalpur, Punjab; 1 Karachi; 3 Delhi.

	Win	g Bill	Tarsus	Tail
ad a msi	3 3 78-88	av. 83 10-13	19-21	46-52 av. 49.5
(IH	80-8	9 from skull 11	-13 19-20	48-56)
krishnakumarsinhji	♂ ♂ 78,80,	65 11(3)	19(2),21	46(2),53
(Vaurie	₫ ♀ 76-85	from skull 12-	-13 -	42-50)
adamsi	♀♀ 77,8	2 12(2)	19,21	43,46
(ін	77-8	2 from skull 11	-13 19-20	46-50)
krishnakumarsinhji	♀ ♀ 75,77	,78,79 10,11,(2),1	19,20,21,-	43,44,45,46

The single specimen from Karachi (1903) is very rufous, a character not shown in others equally old.

890 Calandrella raytal krishnakumarsinhji Vaurie & Dharmakumarsinhji (Bhavnagar) Saurashtra Sand Lark

9 (details below)

(a) 5:1 3 2 9 2 0? Bhavnagar.

(b) 4:23 3 299 1 Kakhart, 1 Kandla, 2 Kharirohar, Kutch.

Group (b) from Kutch is intermediate between topotypes from Bhavnagar and *adamsi/raytal* but the heavier markings on the upperparts as well as on the breast are strikingly different from the paler, less marked races and better placed with krishnakumarsinhji. Measurements under 889.

891 Calandrella raytal raytal (Blyth) (Lucknow) Ganges Sand Lark 3:329

5 (details below)

(a) 2:13 19

1 Bulandshar, 1 Cawnpore, U.P.

(b) 3:13 19 1o?

1 Kyithe, Prome Dist.; 1 Yebauk, 1 Henzada; Lower Burma.

The two Indian specimens are in very poor condition, but the bills are flatter and do not show the thickness and curve visible in the two western subspecies.

The three from Burma, one marked "adult", have their heads spotted rather than streaked, and are slightly smaller.

		Wing	Bill	Tarsus	Tail
(a)		81, ç 76	12, -*	19,19	52, -
(b)	₹80,	♀73, o? 75	-, 13, 12	19,19,19	47,43,44
	(3 9	74-83	c.11-12	19-20	41-47)

* The female has a deformed bill, the lower mandible measuring 14 mm and projecting beyond the upper which is only 9 mm.

EL Melanocorypha calandra calandra (Linnaeus) (Pyranees) Calandra Lark

19 Shustar, Southwest Iran (February 1918)

Wing 120; bill 14.6; tail 60.

The specimen is smaller and the upperparts are darker without the yellow/rufous wash present in *psammochroa*. The bill is smaller than suggested by the length.

EL Melanocorypha calandra psammochroa Hartert (Dur-Badour, Khorasan, Iran) Calandra Lark

6:433 19 10?

1 Hawi Plain, 4 Samarra, 1 Twin Canal, Mesopotamia.

	Wing	Bill	Tarsus	Tail
5.2	130,134,135,136	15,16(2),17	27 (2),29 (2)	65,67,68,69
Ŷ	132	18	28	60

These birds though originally correctly identified were found with *M. bimaculata*. Apart from their larger size and the additional characters of more white both on the outer tail feathers and the inner secondaries, the white supercilium is shorter and less distinct than in *bimaculata*.

EL Melanocorypha leucoptera (Pallas) (Baraba Steppes, Siberia) 1 & No. 8949, Peking, China, (cage bird) 17-1-1901. Wing 112 (106 126 puppe of use of Vel 5): hill 17: terms 27. to 1.55

Wing 112 (106-126, BIRDS OF U.S.S.R., Vol. 5); bill 17; tarsus 27, tail 55.

EL Melanocorypha bimaculata bimaculata (Menetries) (Mountains near Talysh, Transcaucasia) Bimaculated Lark.

1 Tekkret Tigris, along Samarra-Tekret Railway, Iraq. Wing 124; bill 17; tarsus 27; tail 56.

892 Melanocorypha bimaculata torquata Blyth (Afghanistan) Eastern Calandra Lark 3:312

19:1233 5 9 9 20?

5 Meshed, 1 Kidri, 1 Birjand, E. Persia; 2 Chitral, N.W.F.P. 1 Campbellpur, Attock, 1 Jagadhri, 2 Ambala, 1 Danturi Karnal, Punjab; 2 Phaladi, Jodhpur; 1 Badu, Mandvi, Kutch; 2 Calcutta Market.

allid ada to	Wing	Bill	Tarsus	Tail
J.J.	112-122	15-18	26-28	54-58 av. 56
φ φ	114-121	16-17	26-27	50-53 av. 51.6
(ІН	116-126	from skull 17-18	26-27	50-61)

 σ No. 8942, one of several from Meshed, with a small bill and wing (112), shows a rufous wash on the upperparts and on the breast.

The 9 from eastern Persia and Jodhpur are on the underside much whiter than all the others, and are not only a tribute to the skinning of LaPersonne, then Assistant Curator of the Society, but also a striking example of the colour transformations which can be brought about in the process of skinning.

893 Melanocorypha maxima holderi Reichenow (Kloster Shinse, Kansu) Ladakh Longbilled Calandra Lark
3:311 nil.

894 Melanocorypha maxima maxima Blyth (borders of Sikkim)Sikkim Longbilled Calandra Lark3:311

3:29 9 1 0? (juv.) Tinki Deong, South Tibet.

	Wing	Bill	Tarsus	Tail
Adults	142,150	22,22	29,30	75,81
Juv.	141	18	30	72
0 ⁷ ♀	143-154	21-24	29-30	83-93

EL Eremophila bilopha (Temminck) (Deserts of Aqaba, Arabia) Temminck's Horned Lark

3:233 19 Baitul Khalifa, Samarra, left bank of R. Tigris, Mesopotamia. Wing 3397, 101, 996; bill 11.7, 11.6; tail 60, 67, 61.

895 Eremophila alpestris albigula (Bonaparte) (Russian Alps, restricted to Hissar Mountains by Meinertzhagen, 1928, *Ibis*: 523) Pamir-Horned Lark 3: 307

35: Distinguished by the black of cheeks being linked with that on breast.
(a) 24:10 3 3 149 9

1 Asadabad Pass, 4 Kapi Kelen Pass 6000', 2 Najmabad Pass, 2 Turbat-i-Haidari 5000', 1 Turmal, 1 Meshed 4500', 1 Sehdan, 1 Amirabad, 2 Birjand; 2 Mud 4300', 4 Kaidasht Pass 7000', 2 Tigab, 1 Kain, Eastern Iran.

[314]

Wing	Bill Bill	Tail
7 ad. ♂♂ 115-122 av. 117.5	12.1-14.2 av. 13.7	72-80 av. 73-4
(IH 112-119 Ludlow & Kinnear;		
116-124 Paludan	from skull 15-17)	
14 ç ç 103-111 av. 108·3	12.4-13.9 av. 13.2	65-74 av. 68.8
(н 105-109; 104-116	from skull 15-16)	

The 7 immature females are included in the measurements. If separately measured their wings, bills and tails average 2.7 mm, 0.1 mm and 1.7 mm respectively shorter than in adults with white foreheads.

All these birds from eastern Iran are very similar and are marked *albigula* by a previous worker (Ticehurst?) though the type locality is a long way north. They are all distinguished by their short bills. Most of the males show a fawnish tinge on the upperparts, while those lacking this tinge are slightly smaller and no doubt immature. The immature females also show slight differences in the colour of the upperparts and the absence of white on the forehead is presumably a sign of immaturity. \Im No. 8913 collected at Kaidasht, Kain, on 7th December has a yellowish forehead but this may be due to staining.

(b) 2:13 19 Elburz Mts. near Tehran, Iran.

Wing § 119, 9 104; bill 15.5, 12.2,; tail 69, 66.

Vaurie (1951: 490) quotes Stresemann (1929 Jour. f. Orn. 76:361) that albigula is the race in the Elburz mountains. I can see no trace of yellow in either bird, either on the forehead or on the underparts, but the single \mathcal{J} has a bill appreciably larger than in those under (a) and the white band on the forehead is also narrower. The \mathcal{Q} has very indistinct white on the forehead, *contra* pure white in adult (a). It may be worth mentioning that Trott (JBNHS 46:695) notes both albigula (Feb.-March) and Gould's *penicillata* (July) from the neighbourhood of Tehran.

(c) 3:233 19 all Gilgit

V	1	1	n	a
٧	v		11	2

♂♂ 121(2), ♀ 109

Bill 12•7, 12•9, 12.4 Tail 71,80,66

The tucked-in necks and poor condition of the specimen makes it difficult to determine whether the black of the cheeks and breast are confluent but a white collar is suggested. The bills are also smaller than in those under (a). All three specimens show differences in colour. σ No. 8931 a very old skin but without date or collector's name is very pale and may be a migrant *pallida* q.v. No. 21483 φ (obtained by Bid-dulph in February 1879) has gray, and not white cheeks. They are left in this group in accordance with the fact that birds from Gilgit have been so identified.

(d)	6:53319	3 Chi	tral 1400'; 3 Chitral	Ghairat
	Wing		Bill	Tail
22	117-122 av.	119.2	14.2-16.7	72-80 av. 75
ę	117		13.3	75
Thre	e each were	obtained	by Fulton (July)	and Perreau (Feb.),

and while the black cheek-stripe appears connected with the black on the breast in all the specimens, the bills are much longer than in *albigula* and show a tendency towards *longirostris*. They are no doubt resident in the area and do not agree with any description available to me. They were marked *diluta* by ? but are quite different from topotypes of this subspecies from Kashgar (see below).

896 Eremophila alpestris longirostris (Moore) ('Neighbourhood of Agra' corrected to Kulu and restricted to Rohtang Pass) Longbilled Horned Lark 3:309

14 : details below:

(a) 11:533 499 20? (juv.)

1 Sassirla Pass, 15000' Karakoram; 3 Debring, Ladakh, 1 Rungdum Valley 12000', 1 Doha Gugma 15000', 1 Futi Runi 15000', Lahul; 1 Lasar 13000',

1 Kioto, Spiti; 2 Kashmir.

No. 20568 from Sassirla Pass, Karakoram, 15,000 ft is very pale and the bill is not as long as in the others, representing no doubt an intermediate population. Vaurie lists specimens from Debring, Ladakh, as intermediate with *elwesi*. σ No. 18280 from this place (the other two are juvenile) has the smallest wing and bill in the measurements below*.

(b) 3:288 19 Deosai Plateau 13500' Kashmir (all Sept.)

All three are in fresh plumage and have their upperparts paler and almost unmarked, making them very different from those under (a). The latter are however all in worn plumage and it is not possible to comment on the validity of *deosai* Meinertzhagen, which is now generally synonymised with *longirostris*.

		Wing	Bill	Tail
33	(a)	124*-130 av. 127.6	14.8*-17.5 av. 16.3	79-84 av. 81
	(b)	127, mltg.	15.7, 16.4	77,84
	(IH	125-131	from skull 17-20	85-92)
φç	(a)	121,121, 123	15.7, 16.5(2)	76,79(2)
	(b)	114	15.5	72
	(ІН	115-124	from skull 18-20	76-85)
-				

In both (a) and (b) the bills (except in the single pale bird from Sassirla Pass) are very distinctly larger than in the *elwesi*, *argalea* and *albigula*, (excluding those from Chitral).

897 Eremophila alpestris elwesi (Blanford) (Kongra Lama Pass,Sikkim) Sikkim or Elwes's Horned Lark3:310

5:233 (1* by pl. & imm.) 299 10? (juv.)

1 Shushol, 1 Sasar Pass 15-16000' Ladakh; 2 Tso Morari, Tibet; 1 Chunthong, Sikkim.

The adult \eth from Sikkim has a distinct black band at the base of the bill while No. 18284* immature \eth (by plumage) from Tso Morari shows traces of black both on the crown and the forehead suggesting that it is of this race, and I am for the moment leaving them together. Ticehurst (*JBNHS 32*:352) refers to *elwesi* extending as far west as Tso Morari.

		Wing	Bill	Tail
22		116*, 120	12.4*, 13	7 5*,79 *imm.
In All	(ін	114-123	from skull 13-15	76-89)
φç		110,112	12.5,14.2	72,75
	(ін	109-112	from skull 13-15	73-87)

The large 14.2 mm bill of φ 18285 from Sasar Pass, Ladakh is an indication of the trend towards *longirostris*.

EL Eremophila alpestris diluta Sharpe (Central Asia, Kashgar)

3:33 3 2 Kashgar, 1 Yelpaktesh (Chinese Turkestan).

These birds collected in January and June have their upperparts much paler than in others. Though synonymised with *albigula* they are very different in colour from the large series under 895 (a) above, and probably represents a valid subspecies.

Wing	Bill	Tail
120,120, -	11.9,14,14	75,76,81

EL Eremophila alpestris argalea (Oberholser) (Sughet Pass, Kuen Lun Mountains)

7:433 (1* by plumage) 299 1o? (pull.)

1 Chasha, 1 Khamba Dzong, 4 Tingri, 15000' Tibet, 1* n. of Suget Pass. Karakoram Range.

Six of these were collected by A. F. R. Wollaston in July 1921 on the way to the first assault on Everest. Though marked *elwesi* (also Hingston *JBNHS 32*:325) the 3 adult males are immediately separable by the fine white streak (*contra* wider white band in *elwesi*) across the forehead. Though very distinctive, its range of distribution appears encircled by *elwesi*, as at present acceptesd(?).

	Wing	Bill	Tail
22	117, 119(2)	12.4-13.8	70,74,81
φç	111(2)	11.8,12	70(2)

The pullet has a yellowish wash on the chin.

No. 8930 from north of Suget Pass was collected by Stoliczka on the Forsyth Expedition in October 1873; the feathers of the forehead having fallen off, the extent of the white band cannot be determined, but it is very pale above and shows much yellowish on the white parts, both of which may be due to the age of the specimen. It is in very poor condition and no measurements are possible.

EL Galerida cristata cristata Linnaeus (Vienna) Crested Lark 233: 1 Dinnyes, W. Hungary; 1* Kunfeherto, S. Hungary.

Wing 110, 112*; bill 16.2, 17.6*; tarsus 23.5, 25*; tail 62*, 64.

Vaurie (1959) includes *tenuirostris* C. L. Brehm (Sarepta, Lower Volga) with the nominate race, but No. 23428* from S. Hungary is so marked, and has a more slender bill than the other.

EL Galerida cristata subsp.

4:288 19 10? 3 Muscat, 1 R. Tanhat, Arabia.

[317]

Wing 105, 106, 110, 112; bill 19.1, 19.2, 20.4; tail 62, 63, 64, 65.

These specimens are very similar to *subtaurica/magna* (*infra*) but the bills are larger in series. They were taken in March (3) and April (11th) and may be migrants. Ripley has described *thomsi* from Bebel Akhdar, Muscat, as a very dark race, but that name cannot apply here, and they also appear to be out of the accepted range of *altirostris*.

EL Galerida cristata leautungensis Swinhoe (Talienwan, Liautung Peninsula, Manchuria)

19 Peking, China. Wing 102; bill 16.3; tarsus 23; tail 58.

Sp. No. 20570 is very old and in poor condition. The bill is shorter and stouter and the upperparts slightly browner than in *magna*.

EL Galerida cristata subtaurica (Kollibay) (Eregli, Taurus)

1* Kazimain, Baghdad, 1 Felujah, R. Euphrates, 1* Nahr-Umar, 1 Basra dist.; 1 Shustar, S. Persia, 1* Mishan, S. W. Persia, 1* Hassanabad, 1 Meshed, 1 Mohmiabad, near Kain, Iran; 1* Panjgur, Baluchistan.

Subtaurica and magna can both be separated from Indian birds by their longer wings and tails and heavier bills, but there is considerable variation in colour and overlap in size, and the two forms are barely distinguishable. Five of them (marked*) have however been identified as weigoldi (= subtaurica) by Meinertzhagen (?) and the others have been included only because they appear indentical. Three others marked weigoldi have been listed under magna (a) for they agree more closely with those tinged with rufous.

The upperparts are slightly darker but this character is not satisfactory for in more than one instance, one of two birds taken at the same place (and once on the same day) is *subtaurica* and the other *magna* (Basra dist., no dates and Mishan, S. W. Persia, 21st Sept.).

Subtaurica does not appear to have been recorded in Baluchistan.

		Wing		Bill	Tail	
3	5	108-112 (110•5)		17.3-19.8 (18.1)	60-65 (62.5)	
-	ę	111		18.4	64	
	0?	108,112.116		18.8,19(2)	-,61,68	
2	C -		1000	II (Varlaged)	Varland	Created

898 Galerida cristata magna Hume (Yarkand) Yarkand Crested Lark 3:345

53 : details below.

As indicated above, it is barely possible to separate magna from those under subtaurica and they are again divisible into three groups:

1* Baitul Khalifa, Samarra, 1* Sheik Saad, 2 41 m. n.e. of Kut, right bank of Tigris, 1* Basra dist,, Mesopotamia; 1 Mishan, S.W. Persia, 1 Shustar; 1 nr. Meshed; 1 Gurid, 1 Kain, 1 Chah-i-Mirza Khan, 1 Lab-Baring, Seistan; 1 Duzdap, Iran; 2 Kashgar, China.

Three* skins included here were marked *weigoldi* by Meinertzhagen (?).

[318]

^{10:638 19 30?}

 σ No. 9282 from Kashgar (Bailey, 20th June 1918) has the longest wing (118) and the bill (19) and tail (69) are also among the largest. The others all taken between 21st Sept. and 4th February may well be migrants.

(b) 28:1233 1099 60? Similar to (a) but not rufous.

 Felujah, R. Euphrates, 1 Sheik Saad, Mesopotamia; 1 Meshed, 2 Rabat-i-Mahi, Khorasan, 3 Turbat, nr. Meshed, 1 Amirabad, 1 Birjand; 2 Naugab, near Kain, 3 Kain, 1 Kidri, nr. Kain, 2 Afzalabad, 3 Duzdap, 1 Bunjar, 3 Chah-i-Mirza Khan, Seistan Delta; 2 Farghana-Baghdad, Uzbekistan, U.S.S.R.; 1 Bunji, Gilgit.

The two unsexed birds from Farghana, Uzbekistan, obtained in June, have their upperparts greyer than in the others. They measure: Wing 111, 113; bill 15.7, 18.8; tail 64, 69.

(c) 10:833 299

1 Kain-i-Daud, 15 m. n.w. of Dizak, Persian Baluchistan; 1 Chaman, 1 Quetta, 1 Kalat, Baluchistan; 1 Wana, N.W.F.P.; 3 Campbellpur, Punjab; 1 Delhi; 1 Chini, Larkana, Sind.

Nos. 9233 Persian Baluchistan (29th July) and 18348, Chaman (August) were presumably on their breeding grounds. The others from northern India, all obtained in winter, may be migrants. They differ from those under *chendoola* in their slightly larger wings and bills; in some the bills are not as stout as in *magna* and they are separated on the basis of their longer tails—an apparently consistent character of *magna* and others.

	Wing Wing	in an a subivibrail diada di	Tail
	ਹ ੋ ਹੋ		
(a)	106-114, one 118 (111.	2) 16.3-19.5 (18.3)	62-69 (65)
(b)	104-115 (111)	16.3-20 (17.7)	62.69 (64.6)
(c)	102-107 (105-3)	16.1-17.9 (17.3)	59-64 (60.7)
(ін	109-116	from skull 20-22)	9.101.19 . 15.19
	♀ ♀	irom skull 19-23	
(a)	102,105	17,17•2	61-62
(b)	100-112,	16.1-17.5,	57-63,
	one 117 (105•4)	one 19.1 (16.7)	one 69 (61 · 2)
(c)	102,103	16.3, 17.8	61-62
(ін	106-109	from skull 20-22)	

The three from Campbellpur have a narrower band of spots across the breast and the same applies to No. 18342 from the same place which I have placed under *chendoola* for its shorter tail.

No. 9237 is an exceptionally large female (Rabat-i-Mahi, Khorasan, 20th Jan. Wing 117, bill 19.1, tail 69). Is it possible that the largest birds are *magna* while all the others, including some under *subtaurica* represent an intermediate population, which is also migratory?

899Galerida cristata chendoola Franklin (Between Calcutta and
Benares) Indian Crested Lark3:343

36 : details below:

(a) 27 : 10 \$ \$ (juv.) 13 ♀ ♀ 4 o? (1 juv.)

 Jammu, Kashmir; 1 Campbellpur, 1 Lahore, 1 Murakpur, near Ambala, Punjab; 1 Bhong, 1 Harunabad, Bahawalpur; 2 Delhi; 1 Tilwara, Jhunni R., Jodhpur; 4 Meerut, 2 Kanpur, 1 Fatehpur, U.P.; 2 Bhagowni, Tirhut, 1 Rajputtee, Saran, 1 Hanowshi, Samastipur, Bihar, 1 Radhanpur, 1 Jamnagar, 1 Dwarka, Okhamandal, 1 Khari Rohar, 2 Kharaghoda, 1 Mandvi, Gujarat.

Some of the specimens from Gujarat are grey on the upperparts, approaching the colour of the nominate race and quite equal to that of the single *lynesi* available. Fresh material is required to permit the adjustments which appear necessary.

(b) 9:488 39 2 2 o?

1* Kalo Karim, 1 Shiraz, 1 Charbar, Iran; 1 Geh, 1 Gusht, Dizak, Persian Baluchistan; 2 Chitral Drosh, 1 Kilia Drosh, 1 Wana, N.W.F.P.

While the small difference in size would not warrant a subspecific separation from *chendoola*, these specimens are much paler on their upperparts and it is not possible to decide if this difference is natural or due to fading. No. 9216 σ from Kalo Karim, Fars, obtained by Capito was recorded as *magna*, but the small 102 mm wing and 56 mm tail, together with the other similar specimens, leave little doubt that either *chendoola* or another small subspecies is resident through southern Baluchistan and Iran, as far west as Shiraz (July). As in northern India, the position is confused by larger winter migrants visiting the same areas, and the fact that the majority of specimens has been collected in the cold weather. Though unable to offer any very definite results, I have the impression that the individual variation in size is not so random as suggested by earlier workers and that sufficient material and study would fit them into more compact groups.

-				
		Wing	Bill	Tail
(a)	55	97-101 (99.2)	16.2-17.9 (17.2)	54-57 (55)
	(IH	98-105	from skull 19-23	54-63)
(a)	çç	93-101 (96.3)	15.7-17.5 (16.7)	51-56 (54)
	(ін	92-98		51-55)
(b)	8 P	97-104 (101.1)	15-17-16 • 2)	53-58, one 61 (57)
-	0070	C (1', 1 D	1 1, 1 1 14.1	A '1 1 (1

 σ 9273 from Chitral Drosh obtained on 14th April has a 61 mm tail, but all the others have them under 60 mm including \circ 9274 (56 mm) obtained at the same place on the same day.

Group (c) under *magna* (898) is separated by the longer tail but may perhaps represent this population. Some of the more recent skins, particularly from Gujarat have the grey of the underparts approaching that of the nominate race, and more distinctive than in the single *lynesi* available.

900 Galerida cristata lynesi Whistler (Gilgit) Gilgit Crested Lark

19 4900' Gilgit, Kashmere. 12th June 1928.

Wing 96; bill 16.4; tail 55.

This specimen is not distinguished from Gujarat under *chendoola* (a).

[320]

901 Galerida malabarica (Scopoli) Malabar Crested Lark 3:348 29:1533 (1 juv.) 1199 30? (1* juv., 1* chick)

6 Salsette, Bombay; 1* Bhiwandi, 1 Belapur Road, 2 Murbad Road, Kalyan, Thana; 1 Panvel, 1* Kihim, 1 Nagotna, Kolaba; 1 Walwan, Poona; 1 Panchgani, Satara; 2* Rajapur, 1 Ratnagiri, 1 Bhatkal, 1 Gotegole, 1 Manki, 1 Karwar, 1 North Kanara; 2 Talewadi, Belgaum, 2 Mercara, Coorg; 1 Honametti, Mysore; 1 Kethi, 6700', Nilgiris.

Wing	Bill	Tail
ਰ ਰ ਰ 89-102 (96)	13.6-16 (14.8)	46-55 (51-2)
(ін 98-105	from skull 16-18	54-63)
♀ ♀ 90-98 (93-5)	14-14.6 (14.7)	47-55 (50)
(ін 91-94	from skull 16-17	46-52)

In the present series, the northernmost birds from Bombay and surrounding areas (which are the freshest) can be distinguished from others from North Kanara and southwards by the purer white of the underparts, particularly the lower belly; but it is not possible to determine to what extent this difference is natural or due to foxing/staining. Sp. No. 23886, Bhiwandi, Thana, which had a soft skull has the breast-spots on a background which is darker than the chin and belly, and which forms a distinct patch across the breast. Similar bands are visible in other specimens and may be an indication of immaturity. The material available does not support Koelz's propinqua (1939) from Londa, N. Kanara which was said to have the breasts paler and less prominently marked than those from the south.

902 Galerida deva (Sykes) (Dukhun) Sykes's Crested Lark 3:347 26:1788 (2* juv.) 799 (1* juv.) 20?

1 Mandvi, 1 Padhar, 2 Chaduva, Bhuj, 1 Kutch; 1 Dalkhania, 1 Amreli, 1 Kodinar, S. Kathiawar, 1 Sait, Kaira, 2 Dohad; 2* Devlali, 2 Dindori, 3 Nasik, 1 Aurangabad, 1 Khangaon, Poona; 1* Ratlam, 1 Sardarpur, Gwalior, 1 Dodi, Malwa Plateau, Bhopal, 1* Mandu, Dhar State, C.I.; 1 Cawnpore, 1 Agra (cage bird).

Do naw Xi	Wing	Bill	Tarsus	Tail
80	83-91 (85.3)	12-14	20-21	48-52 (50.6)
(ІН	84-92	from skull 13-15	20-21	46-54)
Q Q	78-83 (80.8)	11-13	20-21	45-49 (47)
(ін	76-86	from skull 13-15	20-21	43-50)

Some have more rufous underparts than others but this is probably due to foxing. A few have their breasts more heavily marked.

903 Alauda arvensis dulcivox Brooks (Himalayas and plains of northwestern Punjab amended to Djarkent, Russian Turkestan) West Siberian Skylark 3:315 11:488 79 Pretunel refimered al baniste lie every prost

1 Sheik Saad, 1 Amara, Mesopotomia; 1 Majas, Persian Baluchistan; 1 Wana, Waziristan; 2 Rawalpindi, 1 Karnal, 4 Ambala, Punjab.

In series, these are slightly paler and more rufous than the other skylarks, but all are old specimens and the amount of overlap makes it impossible to separate *dulcivox*, *cantarella* and *intermedia(?)*. They were however examined by Ticehurst and the grouping is on the basis of his identifications on the labels.

ਰਾ ਰਾ	Wing	Bill	Tail
dulcivox	115,116,118,121	12,12.6,13,13.6	65,69,70 (2)
(ін	114-120	from skull 15-16	66-76)
cantarella	115,116,122	12.9,13.5,-	66,68,72
(ІН	115	from skull 15	70)
intermedia (?)	109,113,114,118	11.7,11.9,12.1,12.8	65 (3),66
pekinensis	101,109	11,11.7	60,63
nominate arvensis	117	13.1	69
Q Q			
dulcivox	104-112 (107.5)	11.3, 12.3 (11.9)	60-66 (63)
(IH	104-120	from skull 14-16	61-70)
cantarella	106,107,115	12,12 8 (2)	74
(IH	108	from skull 14	67)
intermedia (?)	108,109,119	11.8,12 3 (2)	64 (2),73
pekinensis	107,114	10-7,11.1	62,65
nominate arvensis	111,112	11.2 (2)	60 (2)
0020 Alanda		Demonstra (Control	Italy) Cause

903a Alauda arvensis cantarella Bonaparte (Central Italy) Caucasian Skylark

14:333 399 80?

4 Hawi plains, Samarra, 1 Sheikh Saad, 2 Shatt-el-Adhain, 2 Feluja, 1 Mosul

1 Kazimain; 2 Bhong, Indus Riverain, Bahawalpur, Punjab, 1 \bigcirc no data. These are slightly darker than *dulcivox*, but see remarks and measurements under 903.

 σ No. 8964 from Mosul with a 122 mm wing and heavy bill is very rufous.

EL Alauda arvensis intermedia (?)

7:43 δ 39 9 1 Gorid 7000', Kain, 5 Amirabad, 1 Birjand, Eastern Persia. These specimens have their upperparts slightly paler than in cantarella and the breasts also appear more clearly spotted than the others. But all were obtained by LaPersonne and the differences may well be due to the high standard of his skinning to which I have referred. The subspecific name, scribbled in pencil, on the label does not bear the author's name and with the transfer of the type locality of the subspecies intermedia to Shanghai it is difficult to guess what subspecies was meant. It is significant that Ticehurst does not refer to intermedia in the Birds of Mesopotomia but in a subsequent note (1926, JBNHS 31:96) while referring to some fresh specimens he apparently synonymises intermedia with dulcivox, while Vaurie (1959:56) indicates that the name has been used by authors "other than Swinhoe, for Zaleshi's kiborti." The present specimens were all obtained in December-January and one label is marked "in large flocks".

EL Alauda arvensis arvensis Linnaeus (Sweden) Skylark.

3:13 299 St. Catherine's Lighthouse, U.K.

The specimens show a rufous wash on the upperparts, more pro-[322] nounced than in the others, except *pekinensis* (q.v.). Measurements under 903.

EL Alauda arvensis pekinensis Swinhoe (Pekin, now Peiping) Chinese Skylark

5:238 299 10?

4 Peking, 1 Foochow, China.

All are over 70 years old and the resemblance to nominate arvensis may be due to foxing. They have noticeably smaller bills.

Measurements under 903.

904 Alauda gulgula inconspicua Severtzov (Turkestan) Turkestan Small Skylark

233:

1 (No. 21413) Karahalpak Village Ferghana, Tuya-Kurgan region; 1 (No. 8985) 10,000 ft Chitral.

The Turkestan specimen dated 13th June 1937 has small, fine streaks on the breast and the upperparts are very faintly marked. Though the latter character may be included in the variations among Indian birds, the bill and tail are noticeably larger, and I am prompted to leave northern Indian resident birds as *punjaubi* (q.v.). The second is included here for its wing and tail are larger than in *punjaubi*, and having been collected on 2nd July was no doubt resident in the neighbourhood.

Measurements under 907.

904a Alauda gulgula punjaubi Whistler (Ferozepur, Sutlej River) Punjab Skylark

17 : details below:

Except for a statement by an unnamed reviewer of Sálim Ali's BIRDS OF TRAVANCORE AND COCHIN (*Ibis* 1937, p. 189) I can find no authority for synonymising *punjaubi* with *inconspicua* as has been done in INDIAN HANDBOOK (5:44).

The *inconspicua* (No. 21213) from almost the type locality has a larger bill than any of the specimens from northern India, and the tail (61 mm) is also larger than in most. With this material, *punjaubi* appears to be distinct and I am listing them separately. The eastern birds from the United Provinces are old and faded, and though in all probability identical, I am listing them separately under the same name.

(a) Fresh western birds: 8:233492?

1 Jagadhri, Ambala, 1 Karnal, 2 Daulatpur, 1 Chacharan, Bahawalpur, 1 Mandvi, Kutch; 1 Satanwara, Gwalior; 1 Sarsava, near Saharanpur, U.P.

Nos. 9056 σ from Mandvi, Kutch, and 9055 \circ Gwalior are in worn plumage, with the upperparts showing a pattern different from that of the others. The former (8th March) is from the range of the newly-described *dharmakumarsinhjii* and is no doubt a migrant into the area.

(b) Eastern and faded (?): 9:788 2 ♀♀

3 Meerut, 6 Kanpur, U.P.

Both groups, (a) and (b) are slightly larger than nominate gulgula and have the underparts white rather than buffish.

Measurements under 907.

905 Alauda gulgula lhamarum R. & A. Meinertzhagen (Ladak = guttata Brooks) Kashmir Skylark 3:318

9:43 3 (1 by size) 499 10?

1 Srinagar, 1 Chasm Sharif, 1 Sooknas, Kishtwar, 1 Cashmir 7000', 1 Kashmere; 1 Fagu, Keonthal State, 2 Simla Hills, 1 Darazpur, Ambala.

Distinguished from *punjaubi* by the more promient rufous on the breast which is marked with heavy spotting. The chin is also irregularly and faintly spotted, a character missing in the neighbouring subspecies, but specifically said to be absent in *lhamarum* by Dementiev *et al.* (1970 para 535). There is some variation in the colour of the upperparts and all the specimens are not identical. The birds from Simla and Darazpur were collected in November/December and bear notes suggesting that they are migrants to the area, but with the data available, there is no alternative but to leave them all together. It may be mentioned that Stuart Baker (FAUNA &:663) has drawn attention to the type being a carbolized specimen in immature plumage.

Measurements under 907.

906 Alauda gulgula inopinata Bianchi (Tibet) Tibetan Small Skylark 3:316

288 Tingri, S. Tibet (July 1921, A.F.R. Wollaston).

Breast well streaked but on white background. The wings (101 and 105) are smaller than indicated in Vaurie "averaging about 109".

Measurements under 907.

907 Alauda gulgula gulgula Franklin (The Ganges between Calcuttaand Benares) Indian Small Skylark3:319

17:1388 399 10?

1 Jabalpore, M.P.; 1 Rajapur, Ratnagiri; 2 Karwar, N. Kanara; 8 Godavari Delta; 1 Chilka Lake, Orissa; 1 Manjhaul, Monghyr, Bihar; 2 Dibrugarh, Assam; 1 Shurdaung, Prome, Burma.

When describing *punjaubi* (JBNHS 38:767) Whistler changed the type locality of *gulgula* from between Calcutta and Benares "to the Ganges between Calcutta and Benares". As Vaurie (1951) has already pointed out, this is no improvement for in the same place he stated that *punjaubi* extended as far east as Dinapur, which is on the Ganges between Calcutta and Benares!

	Wing	Bill	Tail
1 0 5 5 10 in i	in rulous was	e jervenile vritaraetaet of a	
inconspicua	97,102	13.6,14	60,61
punjaubi (a)	93,97	13.9,14	54,55
punjaubi (b)	95-100 (98)	11.8-13.8(12.8)	50-56 (54.6)
(ІН	90-101	from skull 16-17)	
Ihamarum (4)	96-103 (100)	12.6-13.7 (13.1)	55-62 (58.7)
(IH	98-108	from skull 13-16)	
inopinata	101,105	12.6, -	59,61
(ІН	102-108	from skull 15-16	60-68)
gulgula	86-95 (90)	13-2-14-9 (14-2)	46-52 (49.6)
(ПН	87-93	from skull 14-16	49-56)
australis	90,92,94,96	12.5,13.3,13.7,14.2	48,50,51,53
(ІН	90-102	from skull 14-17	49-56)
dharmakumarsinhjii	i 91,92,93,95	12.2,15,15.4,-	47,51,52,56
Q Q			
punjaubi (a)	87-92	13-13-3	49-53
punjaubi (b)	89,99	13.6,13.6	47,53
(ін	90-101	from skull 16-17)	
Ihamarum (4)	92-98 (94.5)	11.8-13 (12.4)	53-59 (55)
(IH	93-97	from skull 14-15)	
gulgula	85,85,88	13,13 • 1,13 • 6	46,48,50
(ін	82-88	from skull 13-15	49-51)
australis	84,87,95,96	12.6,14(2),14.4	46,47,50,52
ПП (ІН	82-88	from skull 13-15	49-51)

907a Alauda gulgula dharmakumarsinhjii Abdulali (Bhavnagar) Longclawed Skylark

7:433 19 20? (Type and paratypes)

1 Mandvi, Kutch, 1 Saiat, Kaira district, 5 Bhavnagar, Gujarat.

This has been separated on the basis of the long hind claw and other differences (JBNHS 72(2):448.

Measurements under 907.

908 Alauda gulgula australis Brooks (Ootacamund, Nilgiris) Nilgiri Skylark 3: 320

9:588 499

 2 Avalanche, Nilgiris, 1* Wadakancheri 400' Cochin, 1 Camp Deramalai, Panthalam Hills, 1 Santhanpara, Cardamom Hills, 1 Perumalmalai, 1 Peermade, 1 Munnar, 1* Travancore.

The two marked (*) are very similar to gulgula and may indicate a connection at the base of ghats, restricting *australis* to the hills.

♂ 2908 from Ratnagiri, south of Bombay, is dark above and would have been included in this subspecies were it not for two pale (and old) specimens from Karwar which have probably faded. This requires further examination.

Alauda gulgula subsp. ?

4 : details below.

(a) 299 Nos. 20206 and 20641 from Kalat, and Sultanabad, 64 m south of Kalat, Baluchistan.

Wing 92, 92; bill 12.4, 12.4; tail 52, mltg.

Both have the juvenile characters of a rufous wash all over and rounded pale-margined feathers on the head and I cannot improve upon Ticehurst who left them subspecifically undetermined.

(b) 20? Mt. Victoria, 7000 ft, Pakokku Hill Tracts, Central Burma.

Wing 94, 95; bill 12:5, 13; tail 49, 51.

These birds were collected on 9th and 16th May 1906 by K. C. Macdonald, and the latter is marked as shot off nest with 3 set eggs. 'In notes on some birds recorded from Burma', Garthwaite and Ticehurst (*JBNHS 39*:558) refer to two larks by Col. Rippon on Mt. Victoria which were first named *arvensis*. This name was scratched out and changed to *japonicus* by Oates, and they thought that these specimens had served to create the erroneous records of *Anthus japonicus* and *Alauda japonicus*, and decided that they were really *A. gulgula weigoldi* Hartert (Hamkow, Hupeh, Yangtze Valley) which was found in Szechwan, S. E. Tibet and N. Yunnan, being more rusty and darker than *A. g. coelivox* (Southeastern China to Central Annam).

The skins show a lot of foxing but they are too dark to be nominate *gulgula* and the measurements, particularly of the tail, do not agree with those of any of the northern races.

909 Alauda gulgula vernayi Mayr (Changyinhku, Burma-Yunnan border) Yunnan Skylark

I have also examined 15 skins from Bhutan which are not yet registered, obtained in recent years by Sálim Ali. They fall into two distinct groups:

(a) 9:63 3 1♀ 2o? Gyitsa 10,000 ft. and Bumthang, Central Bhutan.
(b) 6:43 3 2♀♀ Eastern Bhutan

The western birds have fewer but longer streaks on the breast and there is considerable difference in the intensity of rufous on the breast. They show very distinct pale edges to most of the feathers of the upper surface presenting a very different appearance. Their bills are also much shorter. In both, the streaks at the sides of the upper breast, have coalesced into black bloches, a character mentioned in IND. HANDBOOK for *lhamarum*. The specimens which I have grouped under *lhamarum*, mostly from Kashmir, do not show this character and I am afraid that with the descriptions available, I am unable to decide if either of them is *vernayi*.

		Wing	Bill	Tail
(a)	27 Q	96-107 av. 103	11.8-12.7 av. 12.2	59-67 av. 61.1
(b)	3 P	102-105 av. 104	12•4-13•7 av. 13	59-64 av. 61.2

After these notes were completed, the Bhutan birds were sent to Dr. B. Biswas who has identified group (a) as *inopinata* and (b) as *vernayi*. The former differ from the two specimens from Tingri, South Tibet, named *inopinata* by me above, in having a shorter and more

conical bill, a longer but slender hind claw (6 σ σ 15.5-18.8 av. 17.4) and more rufous above. The last may be due to the Tingri birds being in worn plumage but the other characters appear consistent.

There appears to be little doubt that the geographic variations in this Skylark are not yet fully understood, and more material and work is necessary. The key to the species in IND. HANDBOOK (5:41) refers to the 5th primary of *arvensis* falling short of tip of wing by more than 5 mm, and by less than 5 mm in *gulgula*. In the specimens handled, all *arvensis* show a large gap between the 5th primary and tip of wing and while this is an excellent character for separating the two species, the gap in most *gulgula* is over 5 and nearer 10 mm and the latter figure would serve as a more reliable index.

(to be continued)

Rhacophoridae. The assistance given by Miss S. Isdae. Research: Assist

tional cartilagenous phalande between the penultimate phalanges of



Abdulali, Humayun. 1975. "A Catalog of the Birds in the Collection of the Bombay Natural History Society Part 18." *The journal of the Bombay Natural History Society* 72, 477–505.

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