

Bubo ketupu pageli, subsp. nov.

Description.—Similar to *B. k. ketupu* (Horsfield) from Java but far more reddish or brick-red.

Measurements.—Wing 310–330 mm.

Distribution.—North-east Borneo. The race seems to be restricted to the mountainous parts.

Type.—In my collection: ad., Marudo Bay, Benkoeka River, east coast of British North Borneo, 2. 5. 1893, Pagel, leg.

Remarks.—Named after Herr Pagel, who in 1893 and 1894 sent large collections of birds from Marudo and Darvel Bay to the Berlin Museum.

There is one more adult specimen of this race from Darvel Bay and a young specimen from Kina Balu in the Berlin Museum and one specimen from the Lamuk River in the British Museum (Natural History).

Bubo ketupu aagaardi, subsp. nov.

Description.—Similar to *B. k. ketupu* from Java, but much paler, especially on the underside.

Measurements.—Wing 315–345 mm.

Distribution.—From Peninsular Siam to Annam in the north-east and to Burma and South Assam in the north-west.

Type.—In my collection: ♀, Bang Nara, Peninsular Siam, 25.7.1932. R. Gereke, leg.

Remarks.—Named after Herr C. J. Aagaard, the well-known author of the 'Birds of Bangkok.' I have compared twenty odd specimens from Java with four specimens from Siam in my collection, and later I studied the whole material in the Bird Room, British Museum (Natural History). Specimens from Sumatra and southern Malacca appear to be somewhat intermediate between *B. k. ketupu* and *B. k. aagaardi*. Specimens from western and southern Borneo ought to be carefully compared.

Dr. Meise has shown (Ornith. Monatsber. 1933, pp. 169–173) that the genera *Bubo* and *Ketupa* cannot be separated because there are several intermediate stages as regards the character on which they have been separated, viz., the feathered tarsus in *Bubo* and the bare tarsus in *Ketupa*. Meise has, in my opinion, missed the point in this

matter, viz., that very heterogeneous species were hitherto united in the genus *Ketupa*. While there seems to be a relationship between "*Ketupa*" *zeylonensis* and the yellow-billed *Bubo coromandus* and *Bubo blakistoni*, a far stronger relationship exists between the four named races of *Bubo ketupu*, viz., *B. k. ketupu*, *B. k. minor*, *B. k. pageli*, and *B. k. aagaardi*, to all races of *Bubo bubo*.

In my opinion one may be entitled to treat the *Bubo ketupu* group as a highly modified section of the species *Bubo bubo*, of which they are the geographical representatives in the Indo-Malayan region.

I shall explain this in full in another place.

Mr. G. L. BATES sent the following description of forms of *Ammomanes cinctura* in Africa and Arabia:—

Leaving out of account the typical form *A. cinctura* of the Cape Verde Islands, and also *A. zarudnyi* of East Persia (and counting *A. phoenicura* of India as a distinct species), there is only one certainly recognizable form of the Bar-tailed Sand-Lark in Africa north of the Tropic of Cancer and in Arabia. The difference in appearance of specimens is accounted for by difference in the amount of wear of plumage, the bird looking greyer while the new feathers still retain their greyish tips, and redder when these are worn off and the warmer-coloured lower parts of the feathers are seen. This is the view of recent authorities generally, who consider the names *Ammomanes pallida* Cabanis, 1851* : Kurfuda, Arabia, and *Ammomanes regulus* Bonaparte, 1857 : Algerian Sahara, as synonyms of *Alauda arenicolor* Sundevall, 1850 : Lower Egypt. Arabian birds cannot be separated from North African, though a good series recently sent by Mr. Philby from the interior of Arabia, being in new plumage, are very grey ; a longer average wing also in the recent Arabian series is probably due to a large proportion of them being males.

But the specimens in the British Museum from the desert parts of the Sudan, Omdurman, and the Red Sea Province

* The date of this is wrongly given as 1850 in Selater's Syst. Av. Æthiop. p. 322, where the page reference should be Mus. Hein. i. p. 125 (not p. 12).

show a constant difference in colour from N. African and Arabian ones, even when birds of the same time of year are compared, being sandier in all parts. This is seen even in the sandier colour of the underside of the wing and in the more golden shafts to the remiges, and in the buffish (instead of white) flanks and underparts generally.

The name *Ammomanes phœnicura pallens* Le Roi cannot apply to this sandier Omdurman form since the description does not fit it and, moreover, *pallens* is said to be confined to the Bayuda steppes, the birds found in the Nile Valley above as well as below Bayuda not being *A. pallens* (Ornith. Montasber. 1912, p. 7). Another name cited by Hartert (Vög. pal. Faun. p. 224) is *Melanocorypha elegans* Brehm; this was considered by Hartert, who must have had the type at Tring, to be a synonym of *A. arenicolor*, and it is more likely to be the Egyptian form, even at Abu Hamed on the Nile where this type came from, than the Sudan form, since specimens in the British Museum from the Second Cataract, and from "Abu Fatma" (*i. e.*, Ras Abu Fatima on the Red Sea coast, about 22° N. lat.) are of the Egyptian form. Thus we may describe the sandy Sudan form as new.

***Ammomanes cinctura kinneari*, subsp. nov.**

Description.—As above.

Distribution.—The specimens belonging to this new form in the British Museum are, seven from the vicinity of Omdurman, collected at different times by Dunn, Butler, and W. P. Lowe, and four from the Red Sea Province, collected by Rear-Admiral Lynes.

Type.—♀, 50 miles south of Omdurman (October 9, 1902); collected and presented by Capt. H. W. Dunn. Brit. Mus. Reg. no. 1903.2.4.19.

Remarks.—Mr. N. B. Kinnear has gone to a great amount of trouble to procure material of this Lark for comparison, and has had two specimens sent from the Giza Zoological Museum, collected on the "Suez Road," in order to have them for comparison from the very type-locality of Sundevall's *Alauda arenicolor*, *i. e.*, Lower Egypt.
