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# XXVI.—On the Peregrine Falcon of the Magellan straits

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#### XENELAPHUS.

Anomalocera, Gray, Scientific Opinion, 1869; Philippi, Wiegm. Archiv, 1870, p. 46.

Xenelaphus, Gray, P. Z. S. 1869, p. 498, fig. (horns & skull); Cat. Ruminant Mamm. p. 89.

#### Xenelaphus anomalocera.

Anomalocera huamel, Gray, Scientific Opinion, 1869, p. 385.

Xenelaphus huamel, Gray, P. Z. S. 1869, p. 497, fig. (horns), p. 498, fig. (skull, female).

Anomalocera leucotis, Philippi in Wiegm. Archiv, 1870, p. 46.

Xenelaphus leucotis, Gray, Cat. Rumin. Mamm. p. 89.

Hab. Peruvian Andes, Tinta (Mr. Whitely, jun.).

Male, female, and young (Brit. Mus.).

The adult male from Tinta is 28 inches high to the withers, and the body from the chest to the tail is 34 inches long. Length of head 10 inches, of the ears  $5\frac{1}{2}$  inches, of the tarsus from the false hoof to the hock  $9\frac{3}{4}$  inches.

### XXVI.—On the Peregrine Falcon of the Magellan Straits. By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c., Senior Assistant, Zoological Department, British Museum.

MR. GURNEY has already (Ibis, 1867, p. 465) drawn attention to the differences existing in the Peregrine from the Straits of Magellan and Chili, which he considers to be undescribed. He writes as follows :—" South of Chili, in the southern part of Patagonia and about the straits of Magellan, a really distinct race does occur, closely allied to *F. melanogenys* of Australia, from which, indeed, it only differs in its slightly larger size. It is worthy of remark that the three southern races of Peregrine Falcons, viz. this Magellan race, to which, I believe, no specific name has yet been given, *F. melanogenys* of Australia, and *F. minor* of South Africa, all agree between themselves, and differ from the true *F. communis* in having much narrower spaces than occur in that bird, between the dark transverse abdominal bars which characterize the adult plumage of all these Falcons."

Mr. G. R. Gray considered the Magellan bird to be the same as *Falco nigriceps* of Cassin from Western North America. Mr. Cassin, in describing the latter species, gives Chili as an additional habitat, suggesting that its range may extend throughout the whole of the western side of America. I am unable to determine by internal evidence whether Mr. Cassin had adults or young of the Chilian birds, on which to found his opinion. He could hardly have united the Magellan species if he had had adults, while he might have been easily misled by the rufous character of the young birds into supposing that the two birds are identical. I agree, however, with Mr. Gurney in supposing that the Magellan bird is a distinct species, being, in fact, the American representative of *Falco melanogenys*, from which it differs not only in its slightly larger size, but in the less rufous plumage of the female; and neither male nor female has the very narrow closely set bars of the Australian Falcon, though they are more narrowly barred than the true *Falco nigriceps*. I propose, therefore, to separate the Falcon of Chili and the Magellan Straits as

### Falco Cassini, sp. n.,

and append a description of the bird.

Adult. Above dark bluish ashy, everywhere transversely spotted or barred with black; bars very broad and closely set on the upper part of the back, further apart and more sagittate in shape on the lower back, rump, and upper tail-coverts; a frontal line tinged with whitish, very indistinct; entire head and hind neck, cheeks, ear-coverts, and moustachial streak (that is to say, the *whole* of the face) deep black, extending on to the interscapulary region; least wing-coverts blackish like the latter, the others coloured and barred like the back; quills deep brownish black, the primaries with obsolete grey spots near the base, the inner secondaries uniform with the back; tail bluish ashy, with black bars, which become merged towards the tip of the tail, so that this is conspicuously black for about a quarter of its length; throat itself creamy buff, unspotted; fore neck and chest pale buffy fawn-colour, with very narrow black shaft-lines, the shade of fawn extending slightly on to the breast; rest of the under surface creamy white, with a very strong grey shade on the lower parts, crossed with closely set bars of black; under wing-coverts buffy white, thickly crossed with black bars; the inner web of the quills with numerous buffy white bars, becoming smaller and more obsolete towards the tips of the quills ; bill orange at the base, inclining gradually to bluish horn-colour towards the tip; feet yellow, claws horn-brown. Total length 15.5 inches, culmen 1.1, wing 12, tail 7, tarsus 2.

*Female.* Similar to the male, but larger, and without the bluish shade on the lower parts (probably not so old a bird); the head, neck, and sides of the face black. Total length 20 inches, culmen 1.35, wing 13.5, tail 7.8, tarsus 1.9.

Young male. Above deep blackish brown, the nape tinged with chestnut, all the feathers more or less distinctly margined

with the same colour, except the upper tail-coverts and inner secondaries, which are tipped with buff; quills blackish, the inner webs half barred with clear rufous; tail blackish, tipped with creamy buff, and crossed with several indistinct grey bars, becoming rufous on the inner web; forehead whitish, the feathers under the eye, fore part of the cheeks, and moustachial stripe deep black; throat creamy buff; rest of the under surface deep ferruginous, paler on the lower abdomen, all the feathers mesially streaked with a longitudinal black spot, much larger and more arrow-shaped, on the flankfeathers. Total length 16 inches, wing 12.

Mr. Gurney, in writing to me on the subject, observes that he has seen two distinct Falcons from Chili, one being my F. Cassini, and the other coming from the north, and called by Cassin F. nigriceps, but which he considers to be only F. communis. I agree with Mr. Gurney in considering that F. nigriceps does not go to Chili; and the migratory bird is therefore probably the common Peregrine, which visits South America, as it does India and Africa in the Old World, while the resident southern form is F. Cassini.

The typical specimen of the latter is mounted in the national collection.

I may add a few words as to the Peregrine Falcons and their geographical distribution. No two ornithologists agree as to whether the Peregrines of the world are to be considered races or subspecies of one particular form, or whether there are several species to be designated by different specific names. I incline to the latter view, as rendering the subject less intricate than by merging some of the very different forms under one name. Taking, then, *F. communis* as the typical form, I would characterize the various allied Falcons as follows. Adult specimens of all the birds, excepting *F. minor* (of which there is at present only a young one), are to be seen in the British Museum.

## 1. Falco communis. (The Peregrine Falcon.)

The whole of the Palæarctic region, migrating into India, to the Malay archipelago, and South Africa (more rarely). The entire Nearctic region, except the western coast of North America, where replaced by F. nigriceps. I cannot find any difference in the North-American Peregrine, and consider F.anatum to be identical with the European bird.

2. Falco Brookii. (The Sardinian Peregrine Falcon.) Very much smaller than F. communis, with the bars on the under surface very numerous, and broader than in any other species.

Hab. Sardinia.

3. Falco nigriceps. (The Western Peregrine Falcon.)

Rather smaller than *F. communis* and darker. The young different; much more rufous and richly coloured. The adult creamy white on the breast, without a single sign of a shaft-stripe.

Hab. Western side of North America from California to Vancouver's Island, probably further north.

The two birds procured in Japan, and mentioned by Mr. Whitely (Ibis, 1867, p. 194), are in the British Museum, and are unfortunately both young birds. They are of a more slender build than is usual with the young female Peregrine of Europe, and, from the strong wash of tawny buff on the under surface, might be supposed to belong to Falco nigriceps. They are not, however, quite so rufescent underneath, and the centres to the breast-feathers are not nearly so dark; thus I at present prefer to keep them distinct from this bird, although it is by no means improbable that they may ultimately turn out to be the same. Latham's Oriental Falcon coming from Japan, it can do no harm to keep these Japanese specimens, which agree well with his descriptions, under that title, until the arrival of an adult bird shall enable us to define the species accurately. The late Mr. G. R. Gray referred both these examples and the young Vancouver-Island specimens to Falco orientalis, with which he joined Falco anatum. 1 think, however, that Falco anatum is nothing but the European Peregrine, and the Vancouver birds are really the young of Falco nigriceps, which Mr. Brown identifies as the species found there (Ibis, 1868, p. 418).

4. Falco micrurus. (The Himalayan Peregrine Falcon.)

With this bird Dr. Jerdon identifies Mr. Hume's lately described  $Falco \ atriceps$ ; and two specimens in the national collection belong to this species. They are closely allied to  $F. \ communis$ , but are remarkable for their very nearly obsolete barring underneath, and very pale coloration.

Hab. Himalayas.

5. Falco peregrinator. (The Indian Peregrine Falcon.)

Blacker in all stages than any other allied species. When fully adult, deep rufous underneath, against which the clear blue of the rump and upper tail-coverts contrasts strongly.

Hab, The whole of India; nowhere common.

We now come to the three southern forms with jet-black hoods, viz. :---

6. Falco melanogenys. (The Australian Peregrine Falcon.)

A very distinct species, distinguished by its black face and close-set narrow barring.

Hab. Australia northwards to Java (judging by Schlegel's figure in the 'Vogel van Nederlandsch Indië').

7. Falco minor. (The South-African Peregrine Falcon.) The smallest of all Peregrines. Hab. South Africa and Madagascar.

8. Falco Cassini. (The Chilian Peregrine Falcon.)

Allied to *F. melanogenys* of Australia, but differing as above mentioned. The young deeper rufous than in any of the other Falcons.

Hab. Straits of Magellan and Chili.

#### BIBLIOGRAPHICAL NOTICE.

Dr. Ehrenberg's Microgeological Studies. ["Mikrogeologische Studien, &c.," Monatsbericht kön. preuss. Akad. Wissensch. Berlin für April 1872, pp. 265–322: 1872.]

THIS is the abstract of a memoir which the veteran, and now nearly octogenarian, naturalist of Berlin has laid before the Academy as the results of his long-continued methodical researches on the microscopic life of the sea-bottom of all zones, especially in its relationship to past life and its influence on geological studies. From 1836 to 1871 Ehrenberg has given to the world numerous descriptions and hundreds of good figures (all magnified 300 diameters) of microscopic objects, recent and fossil, the latter mainly in his 'Mikrogeologie' (1854). However numerous the shore-sands, dredgings, and deepsea soundings he has examined, yet, says he, the spots are so widely scattered over the map as to show how much more we have to learn of the sea-bed.

The distribution of warm and cold currents is now beginning to be understood, he remarks; and the dispersion and relative abundance of deep-sea life, and the formation of siliceous and calcareous ooze and muds, are still to be more deeply studied. At all events, the sounding-line has never gone so deep but the microscope shows that nature is rich there also with life. We know not, he says, what forms of being, minute or gigantic, exist throughout the abyssal depths; and "the abundant occurrence of *Peridinia* in the flint of the deep-sea chalk, as well as the living luminous animals on the ocean's surface, and even at the deep bottom off Florida, point to a possibly periodic, and even permanent, strong light in those