

Article XV.—DESCRIPTIONS OF APPARENTLY A NEW SPECIES AND SUBSPECIES OF *CEBUS*, WITH REMARKS ON THE NOMENCLATURE OF LINNÆUS'S *SIMIA APELLA* AND *SIMIA CAPUCINA*.

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Before describing the apparently new forms, it will be advisable to consider the nomenclature of the two Linnæan species above named.

From the time when Humboldt described his species *Simia hypoleuca* (Recueil d'Observations de Zoologie et d'Anatomie Comparées, I, 1811, p. 337), great confusion has existed, both in the names and actual recognition of the species called by Linnæus *S. apella* and *S. capucina*. With many writers the first name has been ignored entirely, and Humboldt's name of *hypoleucus* has been universally applied to the black monkey with the forehead, sides of head, throat, chest, shoulders and forearms white, and ranging from Nicaragua through Central America, the islands in the Bay of Panama, and northern South America to Colombia. The name *capucinus* Linn., on the other hand, has been applied to the brown monkey (the most generally known of all the species), from northern South America, with the crown, hands, feet, forearms, line from crown between eyes and ears meeting under the chin, and tail black; underparts yellowish sometimes with a golden tinge. The species, however, is subject to an extreme individual variation, and, in consequence of this, has received many names from various writers.

Before proceeding further, it will be desirable to ascertain what really was the style of the animals on which Linnæus bestowed the names *apella* and *capucina*. These first appeared in his work entitled 'Museum Regis Adolphi Friderici,' published at Stockholm in 1754. Descriptions and plates are given of the two species in Latin and Swedish. The first mentioned is "*Simia apella*" with this diagnosis: "*Simia imberbis, cauda prehensili, pedibus nigris, corpore fusco.*" The more extended description is as follows:

"Viva asservatur itidem in Museo. Corpus magnitudine Felis, colore fuscum, s. e. griseo nigricans uti Martes; at Pedes, & Cauda nigra. Caput supra nigrum, nigredine ad angulum frontis extensa. Facies incarnato-fusca, a superciliis ad mentum usque nuda. Supra supercilia facies quasi rasa pilis nuper renatis. Sub mento vellus breve, densum, atrum, pingue,

Aures rotundatæ, parvæ. Cauda longitudine corporis, basin versus crassior, pilis brevibus vestita, semper incurva, qua dum scandit, prehendit animal." The plate shows an uncolored figure of a monkey, with the distribution of colors indicated in black and white, answering to the above description, and is the species called by authors generally *Cebus capucinus* Linnæus. Then in the same work follows

"*Simia capucina*," with this diagnosis: "*Simia imberbis nigra*, cauda longa hirsuta, facie flavescente," followed beneath by the description: "Viva itidem in Museo occurrit. Corpus magnitudine cati, atrum pilo laxo longiusculo; at Facies & maxima pars capitis, excepto pileo nigro, pallide flava est una cum pectore ad flexuram usque cubitorum. Facies nuda est, parva & incarnata. Oculi nigri. Nares simæ, protuberantes quasi duobus tuberibus, hiantibus & patulis foraminibus, hinc fere befidæ, obtusissimæ; Basis narium inter oculos carinata est. Aures rotundæ pilosæ. Cauda corpore longior, valde hirsuta, & propemodum lanata, incurva, quam sæpius ante pectus vel supra scapulos inflectit." The figure in the plate exhibits a black monkey with a white head, except a black crown as stated above, white chest and forearms, shoulders and upper arms; a typical *hypoleucus* Humboldt.

By no possible interpretation of the above description and plate can the name *capucinus* Linn. be transferred from this black and white capuchin to the brown species called by Linnæus *apella*. Nor, indeed, would it have been probable that any confusion of names should have arisen, had it not have been, in a measure, caused by Linnæus himself, for in his 'Systema Naturæ,' 10th ed., 1758 (the one now generally agreed upon as the starting point for binomial nomenclature), in the diagnosis of *capucinus* he omits the word *nigra* after "S. caudata imberbis." But in the 12th ed., 1766, the one quoted to-day by many European naturalists as the beginning of the Linnæan nomenclature, Linnæus, as was not infrequently his habit, alters his original description of *capucinus* and makes his diagnosis read, "*S. caudata fuscus*" instead of *nigra*, and on the next page in his description gives "corpus fuscum, pedes, caudaque nigra, Pectus ferrugineum," which describes neither his *capucinus* nor *apella* as first given. In the edition of 1758, the only reference given to both species is the work "Museum Regis Adolphi Friderici," and in 1766 it is the only one for *apella* and the first one for *capucinus*, the other being Brisson's *Cercopithecus fuscus capite vertice nigro*, which is probably *apella* (*nec capucinus*) Linn. Here then is the commencement of the confusion existing for so long between the two species of Linnæus, for his *capucinus* of the 12th edition is not the *capucinus* of the 10th edition nor of the Mus. Reg. Adolp. Frider. No habitat was given at first for either species, but in the 10th edition *apella* is stated to come from

'America' and *capucinus* is still without a habitat; but in the 12th edition *capucinus* comes from Surinam, the other from 'America,' while the description of *capucinus* is a jumble of the two species, with a leaning towards *apella*. The confusion thus created by Linnæus himself has been noticed by previous authors, and some have increased it, like Dahlbom, who while correctly giving the name *capucinus* to the *hypoleucus* Humboldt, renamed the species from Guiana *pucherani*. Schlegel, in the Mus. Hist. Nat. Pays-Bas, Simiæ, in discussing the condition existing, p. 192, refuses to accept *capucinus* for the black and white monkey because Linnæus in his description gives 'corpus atrum,' which he says means "sombre, obscure, ténébreux" contrary to 'nigrum' which Linnæus employed to designate the cap on the head, and therefore he considers 'atrum' does not describe *hypoleucus* which has the body uniformly black. In this argument he ignores entirely Linnæus's original diagnosis of *capucinus*, which states "Simia imberbis nigra," and goes quite contrary to the Dictionaries, which define 'ater' as 'black,' 'coal-black'! Linnæus evidently uses niger and ater as synonymous, both defining the color of the body of *capucinus* as black, which it is. It will therefore be seen that Linnæus's *capucinus*, as originally described, was a black and white or yellowish white animal with a pale face, and not a brown monkey with a fuscous face (*incarnato-fusca*), and the name can only properly be applied to the species afterwards called *hypoleuca* by Humboldt, to which authors generally have erroneously given the name of *capucinus* (*nec* Linnæus).

We now come to the new allied form of *C. capucinus* (Linn.).

### ***Cebus capucinus nigripectus* subsp. nov.**

Type locality. Las Pubas, Cauca Valley, Colombia. "Not found in lowlands" (Coll.).

Type, No. 14180, collection Amer. Mus. Nat. History, New York.

*Color*.— Sides of head and neck, chin, throat, shoulders and outer side of upper arms yellowish white; forehead bistre; top of head, back of neck, chest, body above and beneath, lower arms, legs, hands, feet and tail jet black.

Skull, compared with one of *C. capucinus* from Pozo Azul, Costa Rica, exhibits the following differences:— It is that of a young adult with the teeth but little worn, and part of palate, pterygoid and occipital region gone. The braincase is longer and 5 mm. less in the widest part, over the root of the zygoma; but is 16 mm. wider at the constriction behind orbits, which causes the sides of the braincase to be more nearly parallel; the orbits are smaller; the nasals much narrower; the palate (middle portion posteriorly from pm<sup>2</sup> gone) narrower, and contracting anteriorly; molar series much smaller, the last molar being about half the size of the middle molar, and appearing quite minute when compared with the other teeth in the series. Mandible has the ascending ramus much narrower, with a smaller and less wide angle; jaw at symphysis much narrower and not so deep. The mandible in fact is lighter,

generally smaller and shorter. There is not so much difference in the size of the lower molar series as there is in the upper, but the last molar is the smallest in the series, and smaller than the corresponding tooth in the Costa Rican *C. capucinus*.

*Measurements*.—Total length as given by the collector J. H. Batty, 835 mm.; tail, 430; hindfoot, 122; ear, 30. Skull, occipito-nasal length, 89; zygomatic width, 53.8; width of braincase above root of zygoma, 52; length of braincase from margin between orbits, 75; Hensel, about 68.5; skull broken; length of upper molar series, 32; width of last molar, 3.5; length of mandible on lower margin, 44.9; width at symphysis, 13.7; height of ascending ramus, 28.5; length of molar series, 25.9.

While resembling the typical *C. capucinus* (Linn.) in its general appearance it differs from that species in the color of the forehead which is bistre and not white nor yellowish white, and also in the white of the throat not extending on to the chest, which with the entire under parts is jet black like the other portions of the body. These differences with those given of the skull and particularly of the upper molars would seem to entitle this western form from the Cauca Valley to be ranked as a subspecies.

Three specimens were obtained, two young adults and one younger, all females. They are alike, the forehead of the youngest examples not being so dark as those of the adults. The collector remarks on the label, "Not found in lowlands, mountain species; sagacious, a shy animal, and expert jumper."

#### ***Cebus malitiosus* sp. nov.**

*Cebus capucinus* (nec Linn.) ALLEN, Bull. Am. Mus. Nat. Hist., 1904, p. 467.

Type locality: Vicinity of Bonda, Colombia, South America.

Type, No. 14620, collection American Museum of Natural History, New York.

*Genl. char.*—Mummy brown; shoulders yellow.

*Color, Male.*—Top of head, back of neck, entire upper parts, arms, including elbows and inner side of forearm and legs, mummy brown, tip of hairs paler, in some lights on the body of a golden hue; the crown is somewhat darker than the back; forehead wood brown; space around eyes naked, flesh color; end of nose and lips dark brown, the lips sparsely covered with short white hairs; face flesh color; sides of head, shoulders, forearms on outer side nearly to the elbow, straw yellow; body beneath and inner side of limbs similar to body above but paler; basal half of tail above mummy brown, apical half very dark wood brown; beneath buff color; hands and feet mummy brown; ears flesh color covered with straw yellow hairs.

*Measurements.*—Skin: Total length, 890 mm. (2 ft. 11 in.); tail, 433, (17¼ in.); foot, 113 (4½ in.). Skull: occipito-nasal length, 98.2; Hensel, 77.5; postorbital constriction, 44; greatest width of braincase, 54.5; total length of skull, 102.3; zygomatic width, 70; palatal length, 35; length of nasals, 22.2; width of orbits, 47; length of molar series, 22.1; length of canines, 23.8; length of mandible, 60; height of ascending ramus, 34.6; width at alveolar border, 39.1; length of lower molar series, 37.7; length of canines, 26.6.

The above coloration is what seems to be the typical style, but there is

very great individual variation in the series present, some of the examples being a dark prout's brown, in some lights appearing blackish. The color of the tail varies greatly, and in some individuals the upper portion is mixed light and dark brown giving a grizzled appearance, while others have the basal half like the back, grading off to a wood brown on apical half. The color of the sides of neck and shoulders varies in depth, from a yellowish white to a golden yellow. There is no difference in the disposition of color between the sexes, nor in the brilliancy of tints, and such differences as are sometimes shown cannot be deemed sexual, but purely individual, each one doing apparently what seemeth best in his own eyes; but the hues are restricted to the dark and light shades of brown and yellow.

This species resembles none known to me. The coloring of the head recalls somewhat that of *C. albifrons*, but it has none of the red hue on the body of that species, nor has *C. albifrons* the yellow shoulders of this new form. It belongs to the group without tufts on the head, and differs in such a marked degree from all other species of that group with yellow on the shoulders or arms, that it is not necessary to compare them. The type belongs to the series collected by Herbert H. Smith, in Colombia, and which were provisionally referred to *C. capucinus* by Dr. Allen in his paper on the mammals from that State (*l. c.*).

I am indebted to my friend Dr. Allen for the opportunity of describing the new forms in this paper.

