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ON A NEW WHITE BALD UAKARI POPULATION IN SOUTHWESTERN BRAZILIAN AMAZONIA

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The geographic distributions of the four subspecies of the bald uakari, *Cacajao calvus*, have been reviewed by Hershkovitz (1987) and Barnett and Brandon-Jones (1997). They occur in the upper Amazon, with *C. c. calvus* restricted to a very small range between the lower Rio Japurá and the Rio Solimões, west as far as the Auatí-Paraná, *C. c. rubicundus* to the west of *C. c. calvus*, in a small area north of the Rio Solimões west of the Auatí-Paraná and also between the Rios Solimões and Içá, *C. c. ucayalii* between the Ríos Ucayali and Javará in Peru and Brazil, and the disjunct population of the white uakari, *C. c. novaesi* described by Hershkovitz in 1987, which, with the limited information available to him, he restricted to the south bank of the upper Rio Juruá between the Rios Eiru and Tarauacá. Hershkovitz (1987) indicated the likelihood of its occurrence, however, west to the Rio Gregório or beyond to occupy the entire basin between the Rio Tarauacá and right bank of the Rio Juruá. Here we summarize some recent information that modify the distributions of *C. c. calvus* and *C. c. novaesi*, and report on the discovery of an outlying, new white bald uakari population on the border of the states of Amazonas and Acre in Brazil.

The Museu Paraense Emílio Goeldi (MPEG) mammal collection has a specimen of *C. c. calvus* labeled "Rio Juruá" (MPEG-576), a south bank tributary of the Rio Solimões. Peres (1990) recorded *C. calvus* on the upper Rio Riozinho, an affluent of

the Rio Jutaf (west of the Rio Juruá), and (Peres, 1997) at Vira Volta, left (west) bank the lower Rio Juruá. A. Percequillo (pers. comm.) also observed the uakaris from Vira Volta, recognizing them as *C. c. calvus*, based on specimens in the Zoology Museum of the University of São Paulo (MZUSP). On the basis of this, *C. c. calvus* evidently occurs on both sides of the Solimões occupying at least the interfluvium between the Rios Juruá and Riozinho and possibly extending to the Jutaf, just south of the Rio Solimões. The red uakari, *C. c. rubicundus*, occurs in the Jutaf-Solimões Ecological Station, west of the lower Rio Jutaf (Nogueira-Neto, 1992).

C. c. novaesi is distinct from the white *C. c. calvus* in having a general orange color, with the dorsum, from the nape to the tip of the tail, paler orange, buffy or whitish (Hershkovitz, 1987). Peres (1988, 1990, 1997) recorded it to the north-east of the range described by Hershkovitz (1987), on the left bank of the Rio Juruá, at Lago da Fortuna, Carauari; 500 km to the north and roughly tripling the size of the range. Peres (1997) also recorded *C. calvus* at Sobral on the right bank of the upper Rio Juruá, but whether they belong to the subspecies *ucayalii*, extending the range to east, or to *novaesi*, extending the range to the west, as was proposed by Hershkovitz (1987), is not known.

Unconfirmed reports of a number of uakari populations were also obtained by Fernandes (1990) in the state of Acre. They included: the Mamoadate Indigenous Area on the Peruvian border on the upper Rio Iaco, a right bank tributary of the Rio Purus (possibly *ucayalii*); the Seringal Republica, on the Rio Moa, a left (west) bank tributary of the upper Rio Juruá (possibly *ucayalii*); the Seringal Boca da Pedra on the headwaters of the Rio Tarauacá (possibly *novaesi*); the Rio Acurauá a left (west) bank tributary of the middle Rio Tarauacá (possibly *novaesi*); and the Kulina Indigenous Area on the upper Rio Envira (possibly *novaesi*).

In September 1988, a preliminary inventory of the primate communities on the border between the Brazilian states of Amazonas and Acre was carried out by ESM. A new white bald uakari population was discovered in the flooded forests along the Rio Jurupará, a right bank tributary of the Envira-Tarauacá-Juruá drainage, Amazonas (Figure 1). Three adult specimens were collected and deposited in the MPEG (21861, 21862, 21863). The Rio Jurupará is outside the known geographic distribution of any *C. calvus* form. Due to the proximity of Jurupará to the Rios Eiru and Tarauacá, the uakaris were identified in the field as *C. c. novaesi*. A comparison with the material in the collections of MPEG, MZUSP and the Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ), however, revealed differences in the pelage of the specimens collected with that of *C. c. novaesi*. The appearance of the specimens from the Rio Jurupará was closer to *C. c. calvus*. *C. c. novaesi* has an almost entirely reddish coat, with a short whitish mantle that extends from the nape to the lower third of the back (Hershkovitz, 1987). The uakaris of the Rio Jurupará are almost entirely white on the upperparts, without a contrasting mantle on the back, and yellowish on the underparts (including throat and beard), as in *C. c. calvus*. The Jurupará series was examined by P. Hershkovitz in the MPEG, and later

through photographs sent to the Field Museum of Natural History for comparison with the *C. c. novaesi* types. Hershkovitz (in litt.) concluded that it was an undescribed *C. calvus* subspecies, convergent with *C. c. calvus* in its pelage color. Hershkovitz reinforced his argument, recalling that the upper Juruá basin is rich in mammal endemisms (see, for example, Hershkovitz, 1977; Emmons and Feer, 1997). Hershkovitz' hypothesis is not, however, supported by differentiation in any of the classic morphological characters. Morphologically the Rio Jurupari population and *C. c. calvus* are very similar. The Rio Jurupari population is separated from the known distribution of *C. c. calvus* by more than 700 km, with *C. c. novaesi* enclaved between them.

C. A. Peres also examined the material from the Rio Jurupari and disagreed with Hershkovitz. Based on his observations of *C. calvus* in unflooded forest habitat (see also Bartecki and Heymann, 1987; Aquino, 1998), Peres (pers. comm.) suggested that the *C. c. calvus* distribution may not be disjunct, possibly being continuous through *terra firme* forest east of the *C. c. novaesi* distribution. However, there is no evidence that *C. calvus* occurs east of the Rio Juruá or west of the Rio Tefé (Peres, 1997).

In an attempt to clarify this mystery, we are conducting a morphometric analysis involving 40 cranial measurements (including an initial ANOVA to determine the variables with significant differences between taxa to be used in multivariate analysis) to examine the affinities between the new population, *C. c.*

calvus and *C. c. novaesi*. A study of DNA extracted from hairs will be also carried out in collaboration with the Molecular Genetics Department of the Federal University of Pará. An affinity with *C. c. novaesi* may reinforce Hershkovitz' hypothesis. An affinity with *C. c. calvus*, on the other hand, would call for a major rethinking of current views on the evolutionary history and taxonomic arrangement of the *C. calvus* subspecies.

Specimens Examined

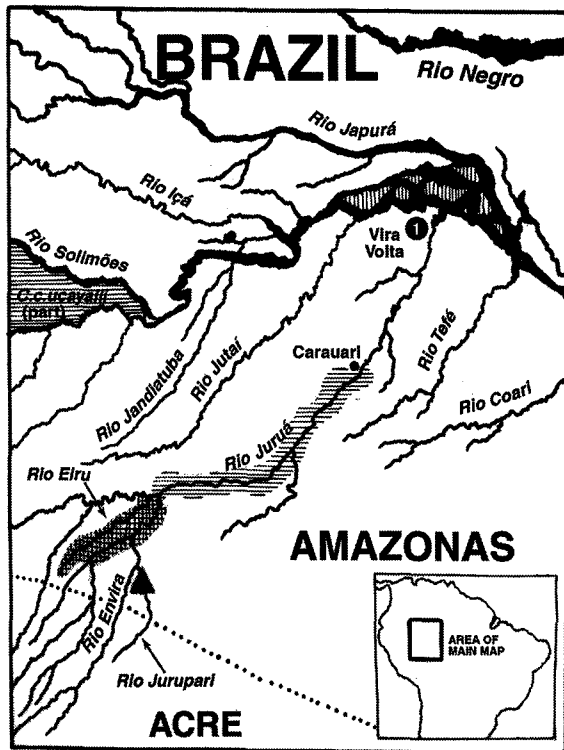
Specimens examined in the mammal collections of MZUSP, MNRJ and MPEG for comparison. *Cacajao calvus calvus*: BRAZIL: AMAZONAS: Lago Mamirauá, Rio Japurá mouth region: MZUSP-17536, 17537; Lago do Tracajá, Rio Japurá mouth region: MZUSP-17535, 17539; Ressaca de Vila Alencar, Rio Japurá mouth region: MZUSP-17542; Paran do Maiana: MNRJ-1599, 2441, 2443, 2444, 2445, 2446, 2447, 2450, 2451, 2452; Paran do Marauí, north bank of the Rio Solimões, municipality of Fonte Boa: MPEG-8990; Rio Juruá: MPEG-576. *Cacajao calvus novaesi*: BRAZIL: AMAZONAS: Santa Cruz, Rio Eiru: MZUSP-4149, 4150, 4151, 4330, 4331, 4332, 4333, 4334, 4335, 4336, 4337, 4338, 4339, 5496, 19359, 19701. *Cacajao calvus rubicundus*: BRAZIL: AMAZONAS: Buiucu, Auati-Paraná channel region: MZUSP-17552, 17553. *Cacajao calvus ucayalii*: PERU: Chimbote, Rio Solimões: MPEG-461, 468, 505; Rio Napo: MPEG-49, 462, 499, 506, 511, 512; PERU: MNRJ-2453; BRAZIL: AMAZONAS: Estirão do Ecuador, Rio Javarí: MPEG-1848, 1849, 1850, 1851, 1852, 1853, 1854. *Cacajao calvus* ssp.: BRAZIL: AMAZONAS: Rio Jurupari, right bank tributary of the Rio Envira: MPEG-21861, 21862, 21863.

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C.c. calvus
 Hershkovitz (1987)
 Percequillo (Pers. comm.)
 The new white bald uakari population

C.c. novaesi
 Hershkovitz (1987)
 Peres (1988)

Figure 1. Location of the new white bald uakari population *Cacajao calvus*. Map by Stephen D. Nash.

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NUEVO MUNDO, NUEVOS MONOS: SOBRE PRIMATES NEOTROPICALES EN LOS SIGLOS XV Y XVI.

Bernardo Urbani

La presente entrega se propone dar a conocer una parte poco conocida de la historia de la primatología americana, referida a las primeras menciones y descripciones de primates dadas por los cronistas y viajeros en América, en los siglos XV y XVI. Para ello, las referencias se presentan cronológicamente. En aquellos casos donde se conozca con exactitud la localidad aludida en la crónica, se emplea en la interpretación por comparación biogeográfica, la obras de Wolfheim (1983) y Emmons & Feer (1997) en el caso de Latinoamérica y la de Bodini & Pérez (1987) y Linares (1998) en Venezuela, para la determinación del posible primate avistado. En éste orden de ideas, a continuación se relatan las primeras noticias de primates del Nuevo Mundo:

1498. En el tercer viaje de Cristóbal Colón, y precisamente en el primer desembarco europeo en tierra continental americana, en la costa sur de la península de Paria, noreste de Venezuela, Colón envía un bote para el desembarco, nos dice ...y *envié los barcos a tierra, y hallaron que de fresco se habían ido de allí gente, y hallaron todo el monte cubierto de gatos paúles; bolviéndose.* (Colón, 1996). Los gatos paúles según la denominación de la literatura del medioevo son los monos

(Acosta, 1992), los cuales también serán denominados gatillos y gatos monillos por los españoles (Ridruejo, 1969). Considerando que el reporte fue hecho en Paria, Venezuela, podría referirse a *Alouatta seniculus* o *Cebus olivaceus*. Por otro lado, es importante destacar que Colón llegó al Nuevo Mundo con la idea de la existencia de primates. En el *Libro de Marco Polo anotado por Cristóbal Colón*, éste último destaca al margen del texto la presencia de monos. En el *Capítulo XV. Del reino de Bosman* de este libro, Marco Polo señala que ...*En este reino hay muchos monos de diversas clases: unos son pequeños y tienen la cara parecida a la humana e incluso en el resto de sus miembros se conforma mucho con el hombre...*, a esto escribe Colón al margen *muchos monos* (Polo, 1987) Posteriormente, en el mismo libro pero en su *Capítulo XXXII. De la provincia de Comari*, agrega ...*Esta región es muy salvaje y tiene muchos animales y muy diferentes de los demás, y en particular simios. Hay allí muchos monos que tienen rostro de hombres. Hay gatos que se llaman paulos, muy distintos de los demás...*, del cual Colón anota al margen de libro *muchos monos, gatos paulos* (Polo, 1987). Nótese en ambas referencia de Marco Polo el referente "humanizado" de los primates.

1502-1504. Cristóbal Colón en su cuarto viaje, estando en Centroamérica probablemente Honduras y/o Nicaragua, relata una escena de cacería de un primate. Dice ...*Un balletero había herido una animalia, que se parece a un gato paúl, salvo que es mucho más grande y rostro de hombre, tenía atravesado con una saeta desde los pechos hasta la cola...* (Colón, 1996). Es posible que se trate de *Alouatta palliata*, *Ateles geoffroyi* o *Cebus capucinus*.

1502. Amerigo Vespuccio, navegante italiano, en una carta enviada desde Lisboa a Lorenzo di Pierfrancesco de Medici de Florencia, señala la presencia de muchos tipos de *babuinos* y *macacos* en tierra continental del Nuevo Mundo, la cual recorrió desde las costas intermedias de Brasil hasta la costa occidental de Venezuela (Vespucci, 1986). Nótese el referente africano para representar a monos del Nuevo Mundo.

1511. En el libro de la "Nao Bretoa" a cargo de Fernando de Loronha, Benedito Morelli, Francisco Martins y Bartolomeu Marchione, se reporta tráfico de primates neotropicales a Europa, señalando 16 saguis y 3 monos (Ribeiro & Araujo Moreira Neto, 1992). Esta nave permaneció básicamente en la desembocadura del río São Francisco, Brasil, por tanto es muy probable que se refieran entre los saguis a *Callithrix jacchus penicillata* y/o *Callithrix jacchus* híbrido y entre los monos a *Cebus apella* y/o *Alouatta belzebul*.

1518. Pero de Magalhães de Gândavo reporta cerca de Río de Janeiro al *Sagoí* de color amarillo y rojo (Magalhães de Gândavo, 1576). Esta es posiblemente la primera referencia de *Leontopithecus rosalia*.

c. 1519. En el mapa policromo llamado *Terra Brasilis*, el cual se le atribuye a Lopo Homen, se reproduce un posible primate neotropical (Figura 1a) (Ribeiro & Araujo Moreira Neto, 1992).

1526. Gonzalo Fernández de Oviedo en su *Sumario de la*