

Martin,

I have placed all the groups that I have record of in their approximate positions. The numbers corresponds to the days of September that the groups were seen. Except for the C. apella that we saw near the second salado (lower right), all the sightings could be of the same group (C. apella and Saimiri). Heriberto said that the group we saw on the 8th was most likely the same as the one of the 7th. I have placed the sighting of howlers by the other wood cutters on the map, as that seemed to be definite. If I remember correctly, you saw C. albifrons and Alouatta on the last day and I have placed them very approximately. If you find that I have left something out, please let me know.

Have a good trip!

John

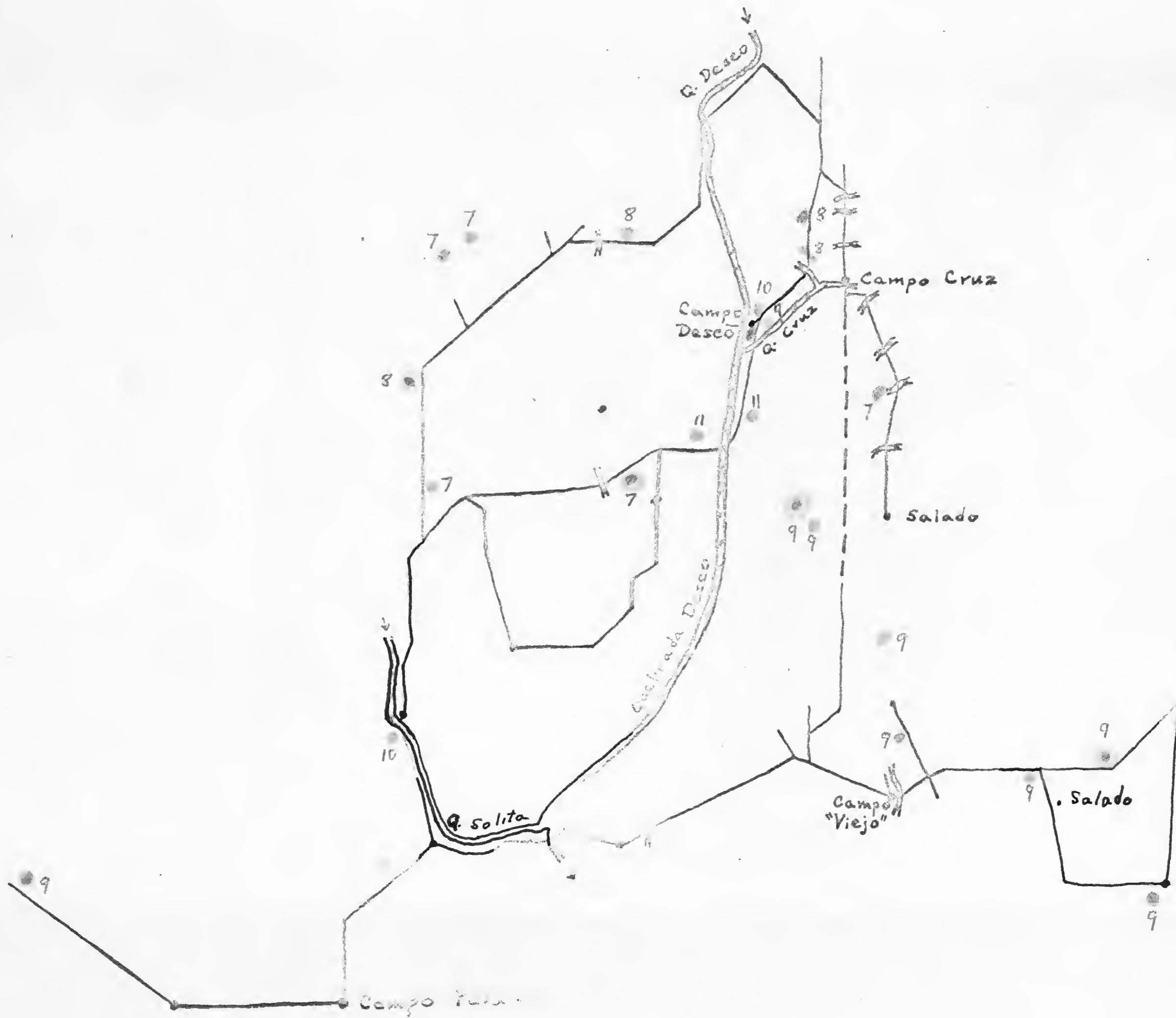
FOREST 15 MILES SSE OF VALPARAISO, CAQUETA, COLUMBIA

0 10 20 30 Minutes Walking
 0 400 800 1200 Yards (Approx.)

- Trail
- - Suspected Trail
- ▬ Stream
- Lumber Site

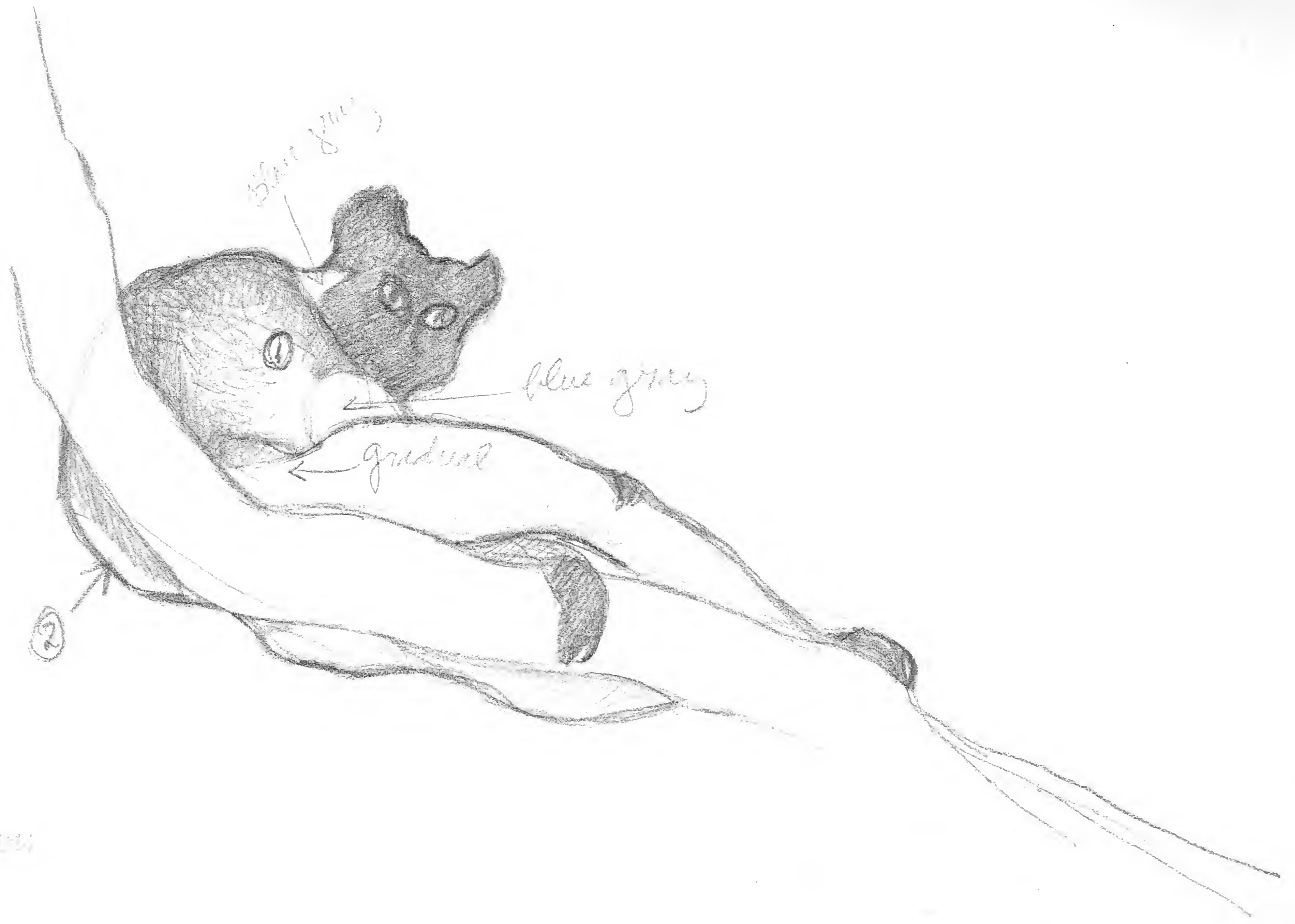


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o Pueblo La Solita

- C. albifrons
- C. opella
- Saimiri
- Saguinus
- Ateles
- Lagothrix
- Pithecia
- Alouatta



11.2 of brown
white
all other is not
clear blue gray

Sag g.

C-mica g.

C-clus mi.

Long Whistle
Whine
Tutters
Sulls

LWL
Low sp's, wll's
Tutters
High Sulls
P-Sulls
Cluck Sulls

Song
Wells's
Grown

Loud Sharp

Sharp
Rattle

Cluck
Cluck
Cluck
Cluck

Soft Sharp
Sneezing Sharp

Long Raps

Woven Raps

Scream

Brown Raps

Infantile Rap

Infantile Rap

Grants
Resonating
Pumping

(RB)

Andrew (1964) describes
some marking (p. 263)

Calajao rubicundus Not seen (probably absent)

Saimiri sciurea ^{Dual-rubbing} Rare. But definitely present. Done by both adult ♂ and adult ♀. Possibly purely cleaning? (The likely - ? - as both ♂ and ♀ picked same site. Masturbation?) Also by male, between cop. attempts. Sexual?

(Hill, 1960, describes a chest gland - over pre-sternum. Apparently not used for "marking". Why?)

Possibly (?) the rubbing of the back along branches by ♂'s, in sexual situations, may be related to RB

Cebus apella Chest-rubbing performed by one half grown territorial ♂ on BCI. Apparently territorial defense. (But there is no published description of chest gland)

Nolte (1958) saw her captive animals "wash" the soles of their feet and the palms of their hands with urine. She suggests that this is used in territorial marking.

Cebus capucinus "Rubbing" still absent. But at least one captive animal has performed what seems to be urinating on palms and/or soles.

Lagothrix lagothricha Not seen.

Ateles "geoffroyi" Apparently absent

Ateles "fusciceps" Apparently absent

RB

February 14, 1965

Cebuella Definitely absent. (Unless association with Gent is equivalent. Gent essentially defensive.)

Callimico Not seen.

Callithrix jacchus Not seen (probably absent)

Leontideus rosalia Not seen (probably absent)

Saguinus leucopus Not seen.

Saguinus oedipus Not seen

Saguinus geoffroyi Anal Rubbing definitely present. Apparently territorial defense. Possibly (also) sexual. By both ♂ & ♀. Not very common, on the whole. Most frequent during breeding season (copulatory phase).

"White-necked" Saguinus. "gracilis" and "niger" definitely do perform anal rubbing (but I have not seen it frequently enough to be sure that it is not purely cleaning).

Pithecia pithecia Not seen

Pithecia monachus Not seen (probably absent).

Allogrooming February 14, 1965

Cebus Almost certainly absent as a general social pattern. (Sexual behavior not seen.)

Callimico Adult ♀ seen to groom juvenile ♀.

Callithrix jacchus Described by Fitzgerald (quoted in Hill, 1957). "General social"?

Leontideus rosalia Not seen as general social pattern (possibly absent)

Saguinus oedipus Not seen

Saguinus oedipus Definitely present. Not very common on the whole. Difficult to interpret. Possibly "general social". Apparent tendency for inferiors to groom superiors. Adult ♂ groomed by ♀'s. Adult ♀'s groomed by young ♂. Adult ♂ groomed by young ♂. Most Allogrooming not followed by overt copulatory patterns. Adult ♂ not seen to groom ♀ before copulation. It is possible, nevertheless, that there is some sexual component in all or most Allogrooming. Allogrooming possibly more frequent during breeding (copulatory) seasons than at other times. Young ♂ repeatedly seen to groom ♀ before copulation attempts (but he did not do so before all cop attempts).

Allogrooming

"White-mouthed" Saguinus, Not seen

Pithecia pithecia Adult or sub-adult ♀ seen to groom half grown ♂ quite frequently. (The reverse was not seen.)

Pithecia monachus Definitely present. Common. ♀'s may groom ♂'s and vice versa. All the allogrooming I have seen was "general social". Certainly not sexual. Performed by juvs and sub-adults (possibly also adults)

Cacajao rubicundus Definitely present. Common. Performed by adults both sexes.

Saimiri sciurea Relatively rare. But, when it occurs, apparently "general social" (Ploog, Blitz, and Ploog, 1963).

Cebus apella Definitely present. Apparently "general social" (Holte, 1958) in most cases.

Possibly (???) ♂ grooms ♀ before copulation.

Cebus capucinus Certainly present. Certainly "general social". Haven't seen enough sexual behavior to determine if it is also sexual.

Lagothrix lagotricha Not seen.

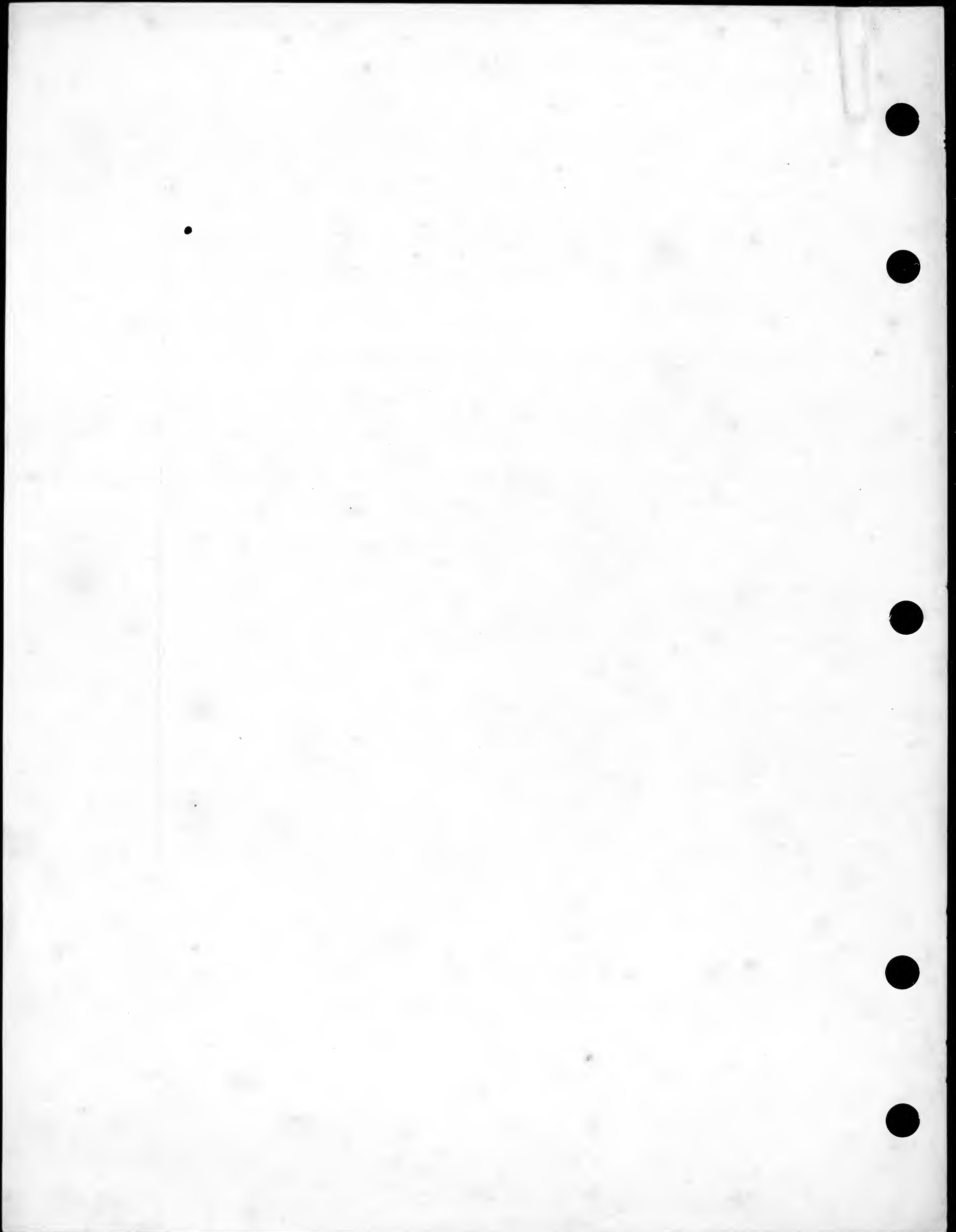
Ateles "geoffroyi" Certainly present. Haven't seen it

Allogrooming

(3)

myself. But I would be surprised if these animals didn't do the same thing as "fusciceps" (see below). In any case, Carpenter mentions Allogrooming by wild "geoffroyi". Apparently not very common. Usually ♀ grooming young

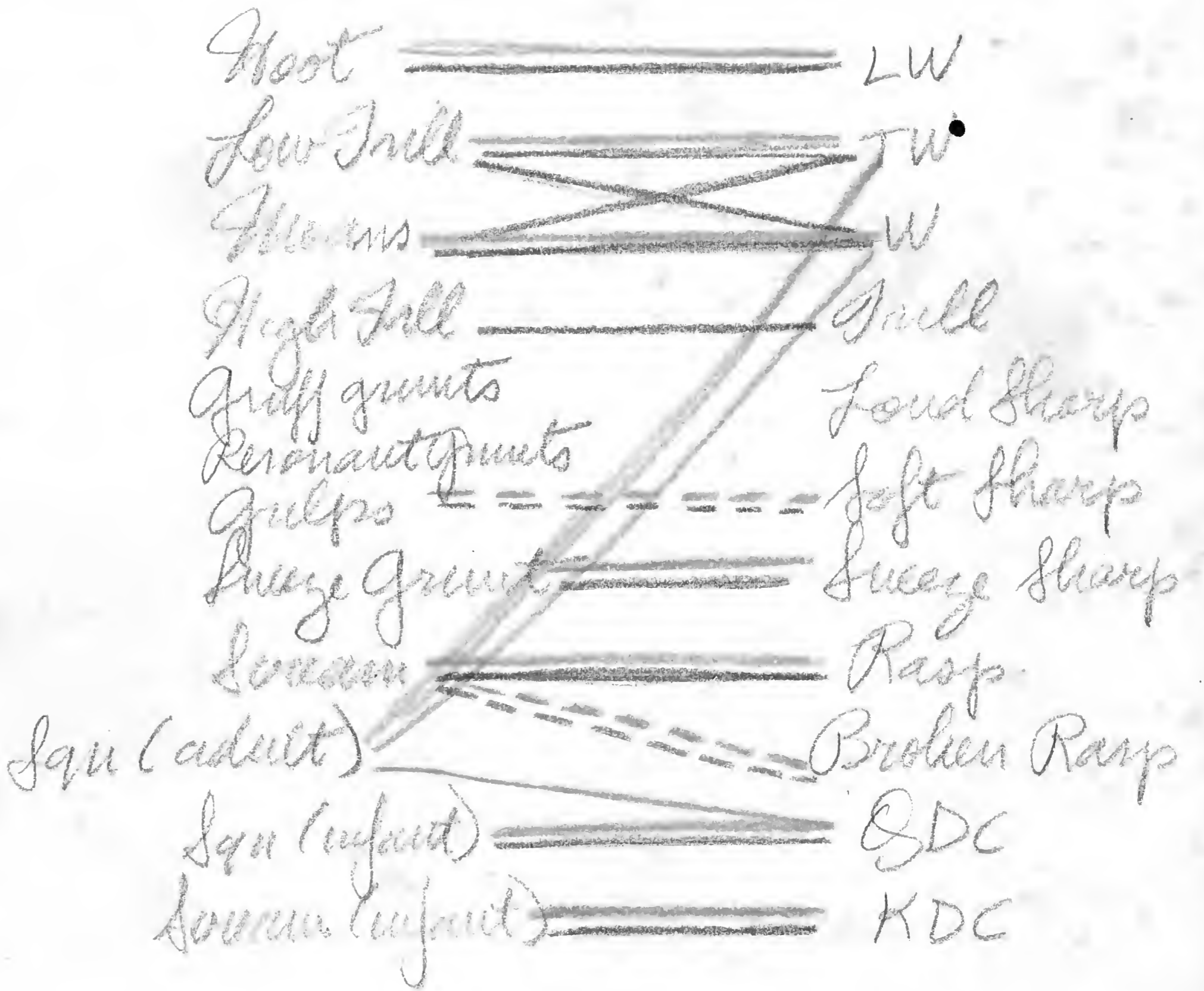
Ateles "fusciceps" Certainly present. ♀'s groom ♂'s quite frequently. Not (usually) followed by overt copulatory behavior. I don't think I have ever seen a ♂ groom a ♀. (This, in itself, may be evidence that the Allogrooming is "general social")

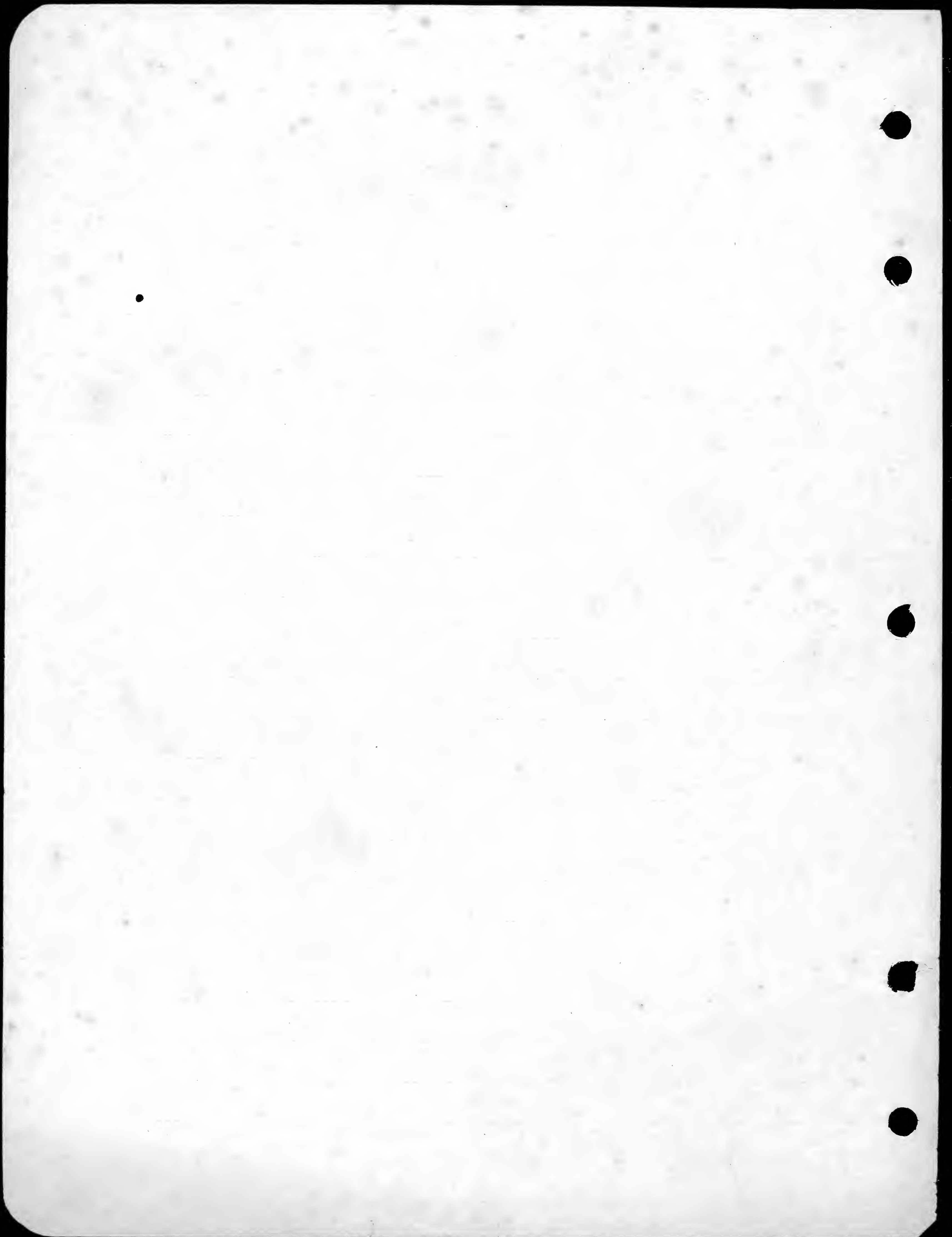


C. moloch

A. tenuigatus

S. geoffroye





June 21, 1964

Pucke

Notes (1)

definitely homologous
produced by similar tendencies
serving similar functions

QDC



Squeals

KDC



Some screams
(by young)

K



Some screams
(adult)

KK



Nothing

(Presumably related
to screams, also in
rhythm Resonant G's)

Nothing



High Fall

Nothing



Gruff Grunt

Nothing



Resonant Grunts

LW



Roets

W



Moan

TW



Low Fall

"Isit"



Sneeze-Grunt
(in part)

Full



Nothing

Some Squ



Glp

Nothing



Crch

SS



SS

SF



Nothing

(can't over)

Punche'

Clotus

(2)

SNF _____
 Allogrooming _____
 Nothing _____
 RB _____
 Freeze _____
 HD _____
 Eye-closing _____
 CR _____
 Tail-fluffing _____
 Tail-curling _____
 Tongue-pumping _____
 Rolling on back _____

SNF _____
 Allogrooming _____
 Tail-twining _____
 RB _____
 Freeze _____
 HD _____
 Eye-closing _____
 Nothing _____
 Nothing _____
 Nothing _____
 Nothing _____
 Nothing _____

June 21, 1964

Aotus

Calliobus moloch (1)

Squalis
Scurms
High Fall

Squalis
Whistles
Sills

Gruff Grunt
Resonant Grunt
(whole performance)

Gruff Grunt
O Notes (and some
are songs as wholes)

Moan
Hoots
Low Fall

BM
Nothing
Nothing
(Unless some
songs are related)

Sneeze Grunt

? Chk
Sneeze

gyp
Nothing
Arch
SS
SNF MM

Nothing
Mu
Arch
Nothing?
SNF

Allogrooming
Tail-twining
RB
Freeze
HD
Eye-closing

Allogrooming
Tail-twining
Nothing
Freeze
HD
Eye-closing

(cont'd over)

Actus

Callicebus moloch (2)

Nothing	_____	gm (+ repeated
Nothing	_____	MO + "chewing")
Nothing	_____	BT
Nothing	_____	PL
Nothing ?	_____	? set

19

20

Saimori

Pawloo ①

Squ	(squ?)
Watl	BDC
High Scream	KDC
Hoarse Scream (aggs)	K
Nothing	KK
Soft Gull	Nothing
Loud Gull	Gull
Soft "Tut"	? "Tut"
Loud "Tut"	"Tut"
Nothing	TW
Nothing	W
LW?	LW
Sneeze	Nothing
"Nuh nuh nuh..."	Nothing
MG	(squ?) Nothing
QM	Nothing
Brrr	Nothing
SS	SS
SF	SF
Qud	Nothing
SNF	? SNF
RB	? RB
Sneeze	Sneeze
HD	HD

(cont'd over)

Saimiri

Pithecia

Nothing?	_____	Eye-closing
Nothing	_____	CR
Nothing	_____	Tail-fluffing
Tail-curling	_____	Tail-curling
Nothing	_____	Tongue-sucking
Rolling on back?	_____	Rolling on back
Nothing	_____	Allogrooming
Penis display	_____	Nothing
Standing up	_____	? Nothing

Apr 24-25

Apr. 23-24

Saimiri seems to be largely intermediate between Calliobus and Saguinus, but not in the same way as Aotus

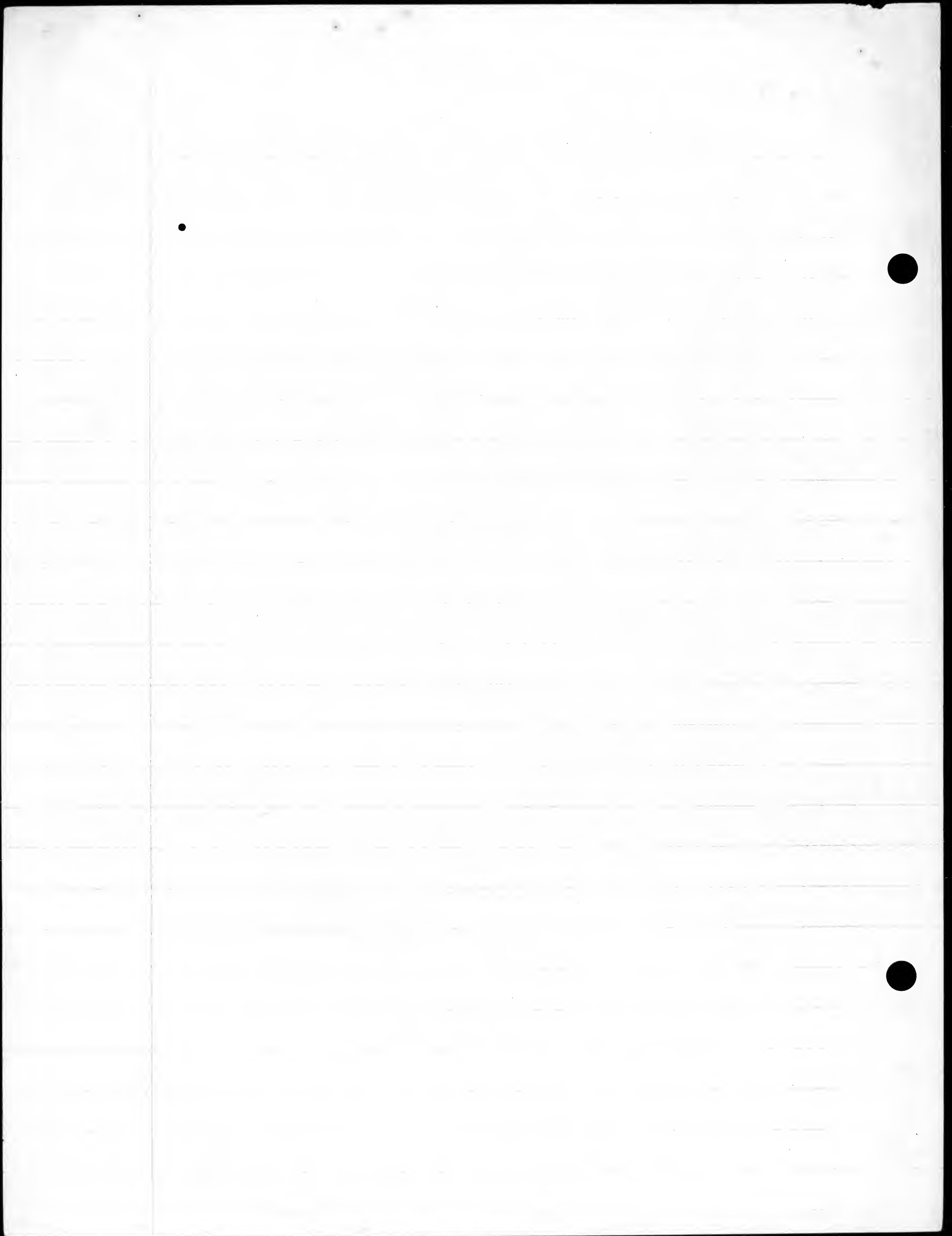
① Mu

In Alouatta, Ateltes, Cebus, Calliobus

Definitely not in Aotus, some species Saguinus,

Apparently not in Cebus, Saimiri, Pithecia,
Cariacus, Lagothrix

But are some of the bill patterns of some of
the latter genera strictly homologous with Mu?



I. Signal system of Cebidae includes vocalizations, plus a larger or smaller repertoire of other acoustic signals, visual signals, olfactory signals, and tactile signals.

II. "Basic" vocal patterns essentially similar in most genera. Other signals more variable, differ more in different genera.

III. "Basic" vocal system includes squeals, whistles, trills, screams, sharp "alarm" notes, a variety of "grunts" or "barks". Possibly also moans. Possibly also song phrases of more or less low-pitched patterns.

IV. Differences between different genera usually due to differences in speed, frequency (cps), and degree of division in morphologically distinct types (or classes).

V. Some general rules. There is a direct negative correlation between frequency of intermediate vocal patterns and degree of dependence upon vocalizations. Frequency (cps) negatively correlated with distance sounds need to, or should, carry.

VI

