

Field Observations of Goeldi's Monkey, *Callimico goeldii*, in Northern Bolivia

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Introduction

Goeldi's monkey, *Callimico goeldii*, is a small diurnal South American primate whose geographical range extends from south-eastern Peru and northern Bolivia to southern Colombia [1, 2]. There is some controversy about social organisation of *Callimico* in the wild. It has been stated that the basic group size is usually a family of 2-4, i.e. an adult male, an adult female, possibly with a juvenile and/or an infant [3]. This interpretation arose from brief observations [4] and from data collected from interviews in Colombia, Peru and Bolivia [5]. However, the only two detailed field studies on the behaviour of *Callimico* in Bolivia [2, 6-8] indicate that groups may contain as many as 9 individuals, including infants. This paper reports further field observations of *Callimico* in northern Bolivia.

Methods

Observations were made between November 8 and 14, 1987, in the Pando Department of north-west Bolivia. The study site, called Planchon, was south-west of the Department's capital, Cobija (11° 11' S, 68° 42' W; fig. 1). Cobija has a marked dry season from June to September. The annual rainfall in 1987 was 1,983 mm, with 359 mm falling in November. The study area consisted mainly of primary forest, with small patches of scrub forest with bamboo which occurred naturally. Eight other primate species lived sympatrically at the study area: *Pithecia irrorata* [9], *Callicebus cupreus*, *Alouatta seniculus*, *Cebus albifrons*, *Cebus apella*, *Aotus trivirgatus*, *Saguinus fuscicollis weddelli* and *Saguinus labiatus labiatus*. Further details of a study site nearby are provided elsewhere [10].

Initially, my guide (Edilio Nascimento) and I made a general prospecting survey of the forest. Once *Callimico* had been located, we returned specifically to that area in an attempt to locate the group again. Checksheet data were collected on the time and duration of sightings, forest location, on-going activity, the number of animals seen, the height in the forest and the distance to the nearest other primate species.

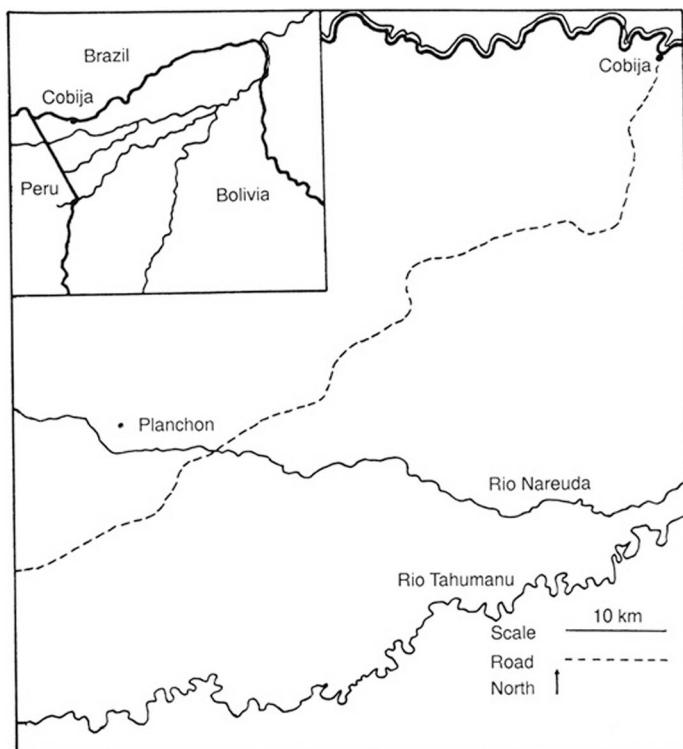


Fig. 1. Sketch map to indicate the study site at Planchon.

These data were collected immediately upon sighting *Callimico*. The data include 59 min of contact time during 4 separate encounters with *Callimico*. It is believed that each encounter was with the same group of *Callimico* as all 4 sightings were within an area of 200 m of each other. Captive observations of *Callimico* of known ages provided a reference to estimate age classes.

Results

The group was located by its vocalisations, and human imitations of its long calls attracted the group to the observers' hidden location. The group consisted of 7 (or possibly 8) fully grown individuals, 1 juvenile that was not fully grown (estimated age 6–9

months) and 1 carried infant (estimated age less than 2 months). The group appeared cohesive and travelled by leaping between vertical trunks, generally at heights between 1 and 5 m in the forest (fig. 2). The forest they occupied was scrub forest with bamboo, which was very difficult for observers to penetrate as it was so dense. *Callimico* was observed to ascend to heights of about 12 m to eat fruit from trees such as *Pseudolmedia macrophylla* Trecul and *Pourouma cecropiaefolia* Mart. (both belonging to the family Moraceae). At every sighting of *Callimico* the two sympatric tamarin species *S. labiatus* and *S. fuscicollis* were observed within 10 m. These two tamarin species were also observed feeding on these two fruits.



Fig. 2. *Callimico* in scrub forest in north-west Bolivia.

Discussion

The main observation was that the *Callimico* group was found to consist of at least 7 adults (and possibly 8), 1 juvenile and 1 infant. Groups of this size have been reported by others [2, 7]. A group of 9 *Callimico* is probably not formed by a monogamously mated pair and their offspring if, as is often supposed, singletons are the norm and females breed just once a year. There is in fact some debate as to whether such large group sizes are attributable to the presence of two simultaneously breeding females [2] or to one breeding female giving birth twice a year [5]. However, present data do not permit us to distinguish between these alternatives.

As in previous reports *S. labiatus* and *S. fuscicollis* were often close to the *Callimico*

group [11]. While there is likely to be some competition for food between these three species, there are pronounced differences in their preferred heights in the forest. *Callimico* was usually observed at less than 5 m unless it was feeding on fruit in taller trees, whereas *S. fuscicollis* spent most time at heights of 10–15 m and *S. labiatus* at heights of 15–20 m [10].

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