

BIOMETRY OF PACA NEWBORNS BRED IN CAPTIVITY  
(*AGOUTI PACA*, LINNAEUS, 1766)

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RESUMO

NOTA CIENTÍFICA: BIOMETRIA DOS NEONATOS DE PACA CRIADOS EM CATIVEIRO (*AGOUTI PACA*, LINNAEUS, 1766)

A biometria proporciona dados importantes no peso e comprimento de neonatos de animais selvagens. Após detecção ultra-sonográfica da prenhez, 22 pacas fêmeas foram separadas em baias individuais e mantidas até o desmame dos filhotes. Os neonatos eram medidos com uma fita métrica flexível (entre as extremidades do focinho e da caudal) e então pesados em balança digital de precisão. Considerando-se machos e fêmeas, o comprimento dos neonatos (comprimento  $\pm$  desvio padrão) foi  $33,37 \pm 0,57$

cm. Entre os machos, o comprimento médio foi  $33,30 \pm 0,52$  cm e entre as fêmeas foi de  $33,45 \pm 0,62$  cm. Em relação ao peso e considerando-se machos e fêmeas, os neonatos pesavam (peso  $\pm$  desvio padrão)  $741,14 \pm 51,23$ g. Entre os machos, o peso médio foi  $717,75 \pm 49,06$ g e entre as fêmeas  $764,53 \pm 53,40$ g. Os neonatos fêmeas são maiores e mais pesados que os neonatos machos de paca, mas as médias de peso e de comprimento de machos e fêmeas não diferiram entre si, pelo teste de Tukey ( $P < 0.05$ ).

PALAVRAS-CHAVES: Biometria, neonatos, agouti paca.

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ABSTRACT

Biometry provides important data on weight and length of wild animal newborns. After ultrasound pregnancy detection, 22 female pacas were separated in individual bails and kept until weaning of newborns. Newborns were measured with a metric tape (between the tips of the muzzle rostrally and the tail distally) and weighted in a digital weight scale. Considering males and females, the average newborn length (average length  $\pm$  standard deviation) was  $33.37 \pm$

$0.57$ cm. Among males, the average weight was  $33.30 \pm 0.52$  cm and among females  $33.45 \pm 0.62$ cm. Considering males and females, newborns weighted (average weight  $\pm$  standard deviation)  $741.14 \pm 51.23$ g. Among males, average weight was  $717.75 \pm 49.06$ g and among females  $764.53 \pm 53.40$ g. Female newborns are higher and heavier than males, but averages of weight and length of males and females did not differ themselves by the Tukey test ( $P < 0.05$ ).

KEY-WORDS: Agouti paca, biometry, newborns.

## INTRODUCTION

Wildlife is an important replaceable resource and the rural dwellers of tropical America depend of caviomorph rodents, as pacas (*Agouti paca*), fish, and birds for their proteic feeding (COIMBRA FILHO, 1974; COLLET, 1981). Pacas and agoutis (*Dasyprocta spp*) are cited as one of the main items for those populations' diet, and, consequently, small mammals most hunted in those regions. This usage of animal protein of high quality is based just in extractivism, neither having control nor handling of those species (KLEIMAN et al., 1979).

A better knowledge of some pacas' reproducing characteristics will contribute with the establishment of rational breeding, because of a great commercial interest on their meat, considered as one of the most tasteful, in countries where they are commercialized legally or not, showing the highest prices among other meats, from both pet and wild animals (SMYTHE, 1987).

The lack of accurate information about paca newborns, mainly about comparisons between male and female for weight and length, linked to the importance of procreation, preservation and action potentials as experimental model, all justified the realization of this research.

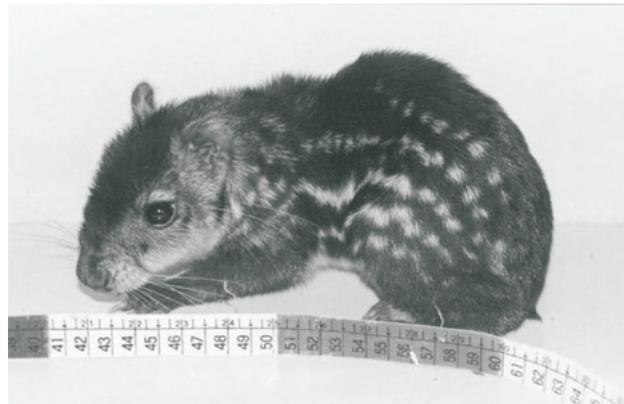
## MATERIAL AND METHODS

During 4 yr, 22 paca newborns were used, which belonged to the Wild Animals Sector of the Animal Science Department in the Faculty of Agrarian and Veterinarian Sciences, Jaboticabal Campus. The newborns came from mating of 13 different females and six different males, housed in pen of about 15 m<sup>2</sup> and a burrow with three internal places linked themselves, staying in each pen one male and two or three females with individual marking by microchips applied on the dorsal cervical region.

Animal feeding was made by rodent rations, 1.0% of weight per day, (Labina™, Agribands Purina do Brasil®) and fruit of the season (10% of weight per day), usually offered in the afternoons. As for the B-mode and real time transabdominal

ultrasonography, with electronic sectorial transducers of 5.0 and 7.5 Mhz (LC 100 Vet™, Pie Medical®), the females were captured in polypropylene net and taken to a room near the bails, where clipping was made with stainless blades. Pelvic members were suspended and abdominal region exteriorized of the net, because keeping the animal in dorsal recumbency was not viable because of its aggressiveness (OLIVEIRA et al., 2003).

After ultrasonographic confirmation of pregnancy, females were separated in individual pens for birth and kept until the end of weaning. Newborns were measured with a flexible metric tape (between the tips of muzzle and tail) and then weighed on digital scale (Figure 1).



**FIGURE 1.** A female *Agouti paca* newborn whose length was gotten with a flexible metric tape between the tips of muzzle and tail.

## RESULTS AND CONCLUSIONS

Previous reports on literature do not make allusion to sex and number of animals when describing length and weight, as this paper does. Thus, considering males and females, newborn's average length (average length  $\pm$  SD) was 33.37  $\pm$  0.57cm, being longer than 24 to 30cm (MONDOLFI, 1972) or 23cm (MATAMOROS, 1982) previously described for the same species. Among males, the average length was 33.30  $\pm$  0.52cm and among females 33.45  $\pm$  0.62cm (Table 1).

**TABLE 1.** Length and weight at birth of female and male *Agouti paca* newborns with average and standard deviation.

Animal	LENGTH (CM)		WEIGHT (G)	
	Female	Male	Female	Male
1	34.60	34.20	902.50	770.60
2	32.80	33.00	731.10	724.30
3	33.50	33.40	770.00	815.10
4	33.60	32.90	752.10	741.90
5	33.30	33.30	743.30	642.20
6	33.10	33.40	711.50	691.80
7	34.20	33.10	722.20	653.20
8	32.90	33.70	804.50	710.60
9	34.10	32.80	801.00	731.80
10	33.00	34.00	762.20	715.30
11	32.80	32.50	709.40	698.40
average	33.45	33.30	764.53	717.75
standard deviation	0.62	0.52	53.40	49.06

NOTE: Averages of weight and length of males and females didn't differ themselves, by the Tukey test ( $P < 0.05$ ).

In relation to weight and considering males and females, newborns weighed (weight  $\pm$  standard deviation)  $741.14 \pm 51.23$ g, being within the interval of 550 to 800g already described by MONDOLFI (1972). These animals' weight was still similar to the 710g prior noticed by KLEIMAN et al. (1979), and differing however, from 650g also described by MATAMOROS (1982). Among males, the average weight was  $717.75 \pm 49.06$ g and among females  $764.53 \pm 53.40$ g (Table 1).

Female paca newborns are bigger and heavier than the male paca newborns, but the averages of weight and length of males and females didn't differ themselves, by the Tukey test ( $P < 0.05$ ).

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Protocolado em: 3 fev. 2006. Aprovado em: 8 set. 2006.