

INTRODUCTION

The red brocket deer is a medium-sized artiodactyl with a wide distribution, weighing between 30-40kg. Is the one of the most frequently hunted species in the Amazon region, presenting an important source of meat for local human populations. Reproductive parameters of brocket deer in the wild are largely unknown due to the difficulty of obtaining data. It is necessary to expand the information of the reproductive biology of red brocket deer, in order to develop effective management strategies that guarantee their sustainable use.

OBJECTIVES

The aim of this study is to describe the fetal development of the red brocket deer through the examination of reproductive tracts from animals hunted for subsistence purposes, obtained with the collaboration of local hunting communities in the Peruvian Amazon. We describe the development of external and internal morphology of red brocket deer fetuses to gather data about the reproductive strategy that can help to the development of management strategies for the sustainable use of this species.

RESULTS

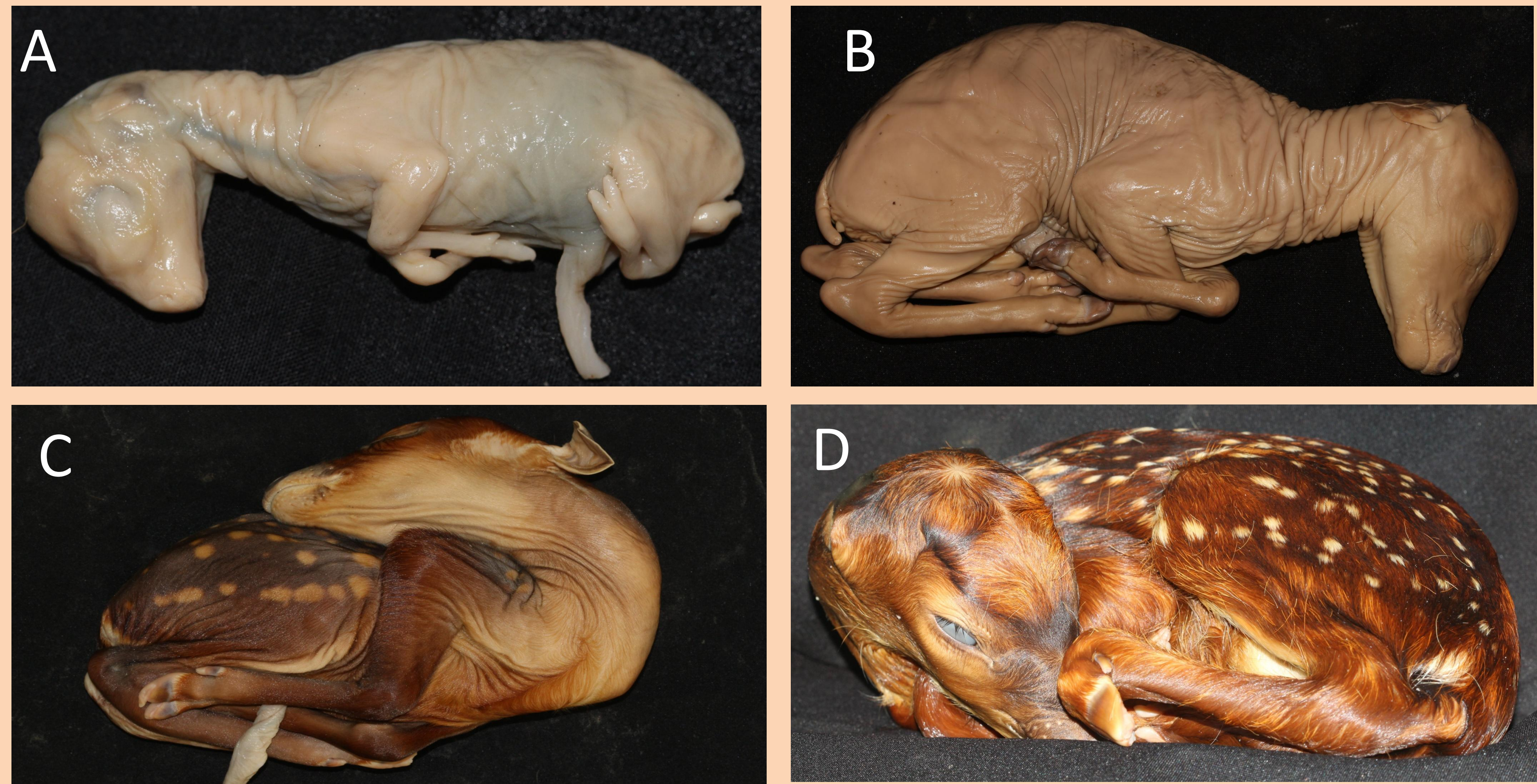


Fig1. Fetuses of the brocket red deer (*Mazama americana*) at different stages of intrauterine development presenting distinct external features according to their dorsal length. A) 9.5cm, B)30.3cm, C)34.6cm, D) 34.6cm.

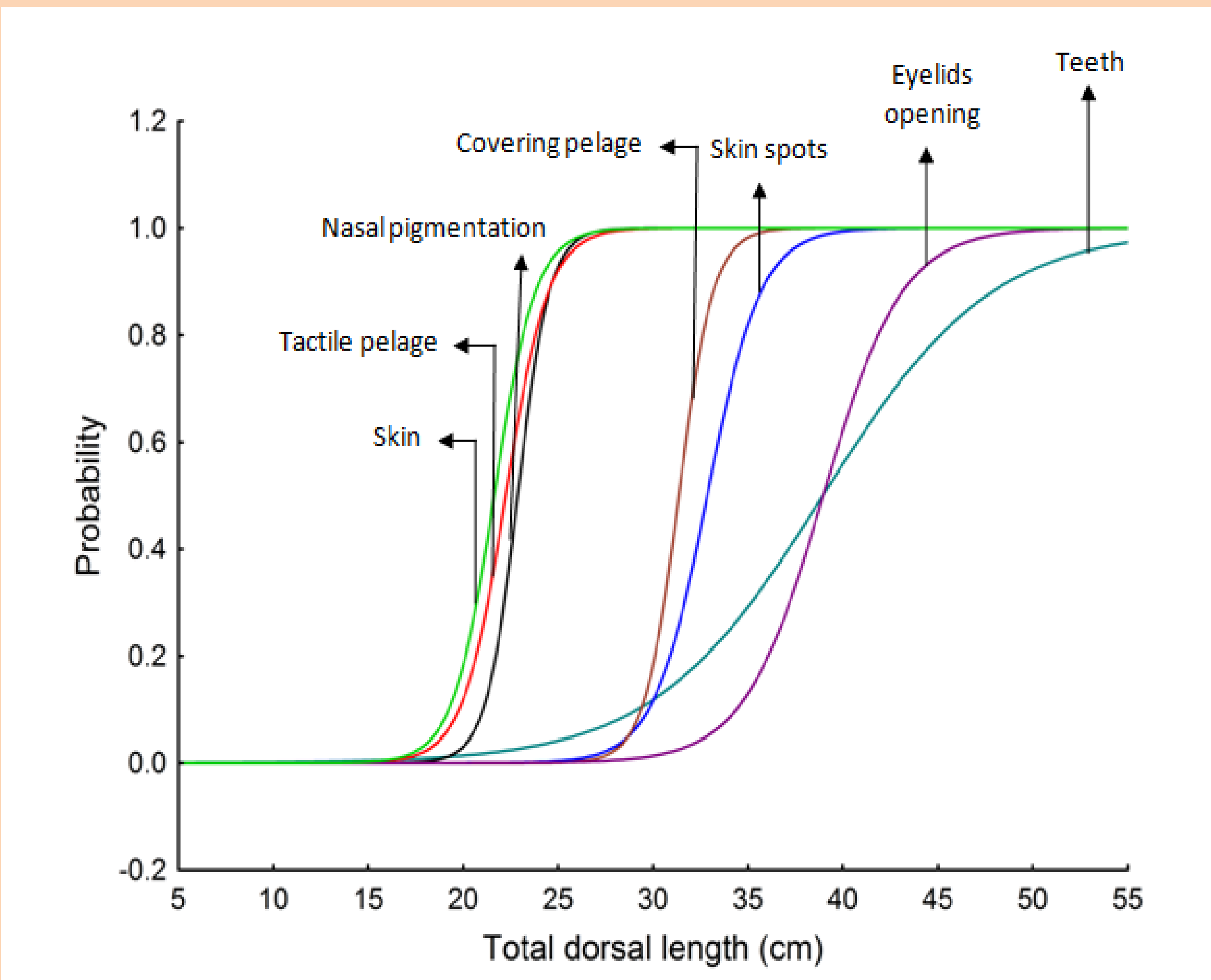


Fig2. Probability curves for morphological features along the increase of dorsal length (LD) in 39 fetus of the red brocket deer (*Mazama americana*)

	Absolute volumes +/- SD (cm)		Relative volumes +/- SD (%)		T Estadistic	T critic value	DF	P-value
	Fetus	Adults	Fetus	Adults				
Heart	13.1 ± 3.05	187 ± 67.88	8.16 ± 1.5	8.2 ± 0.2	0.078	2.35	3	0,471
Liver	43.2 ± 3.35	383 ± 123.03	27.17 ± 3.9	17 ± 0.5	-3.494	2.35	3	0,019
Kidneys	3.3 ± 0.14	40.5 ± 0.70	2.24 ± 0.35	1.9 ± 0.6	-0.72	2.91	2	0,272
Digestive	59.23 ± 22.18	1142.5 ± 335.87	35.92 ± 7.68	50.9 ± 0.8	2.621	2.35	3	0,039
Lungs	34.56 ± 7.38	385 ± 106.6	21.37 ± 2.37	17.2 ± 0.6	-2.320	2.35	3	0,051
Timus	3.2 ± 0.98	0	2.11 ± 0.23	0	-12.818	2.91	2	0,003
Spleen	5.37 ± 0.17	11 ± 60.81	3.68 ± 0.86	4.8 ± 1.2	1.03	2.91	2	0,205
Total	161.75 ± 30.17	2250 ± 694.378	-	-				

Table1. Absolute and relative volume of the visceral organ of red brocket deer (*Mazama americana*) in advanced pregnancy stage (n=3, LD>44.2cm) and adulthood (n=2).

CONCLUSIONS

The red brocket deer is a precocial species due to the high developed morphological features in advanced fetuses: present covering pelage, open eyelids and the initiation of teeth eruption. Also, the young are born with well-developed internal organs since there are no differences in the relative organ volumes between most developed fetuses and adult individuals except the liver, the lung, the digestive and the thymus that end their maturation after birth. The results suggest that neonates of this species are well developed and ready to be quite independent of the mother and able to thermoregulate its temperature and detect potential predators and food.