



ULTRASTRUCTURAL ANALYSIS OF SPERMATOZOA IN AGOUTIS DURING SEXUAL DEVELOPMENT



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Introduction

The aim of this study is to describe the ultrastructure of sperm during prepubertal and pubescent stages of agoutis kept in captivity. The agouti (**Figure 3**) represents an excellent source of animal protein. In captivity, the establishment of pubescent occurs at 9 months of age. The study of the sperm is particularly relevant to reproduction of the species and can promote morphological information necessary for reproduction biotechnologies.

Material and method

Testes of agoutis were collected by orchiectomy, fixed by immersion in a solution of 2.5% glutaraldehyde for 24 h and were performed by transmission electron microscopy (**Table 1**).

Conclusion

This study was the first about ultrastructure of the sperm in the agouti. The sperm is not fully formed during prepubertal and, during the pubescent, the sperm is characterized by a tapered head without distinction as of acrosome.

Table 1. Number of animals and ages collected per stage of sexual development:

Period	Age (months)	Number of animals
Prepubertal	7	2
Pubescent	9	2
Total		4

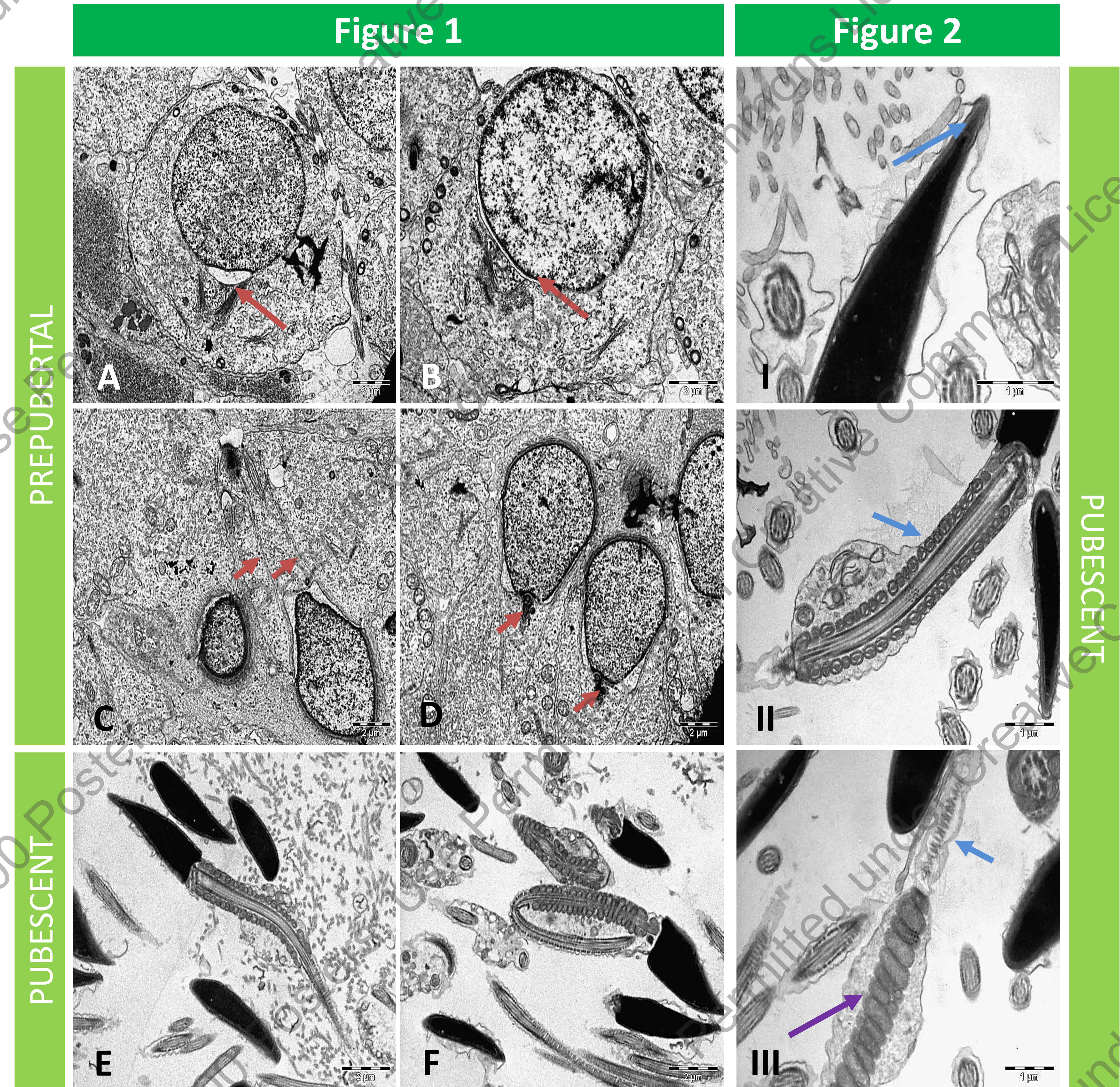


Figure 1. (A-B) formation of pro-acrosomal vesicle. (C) formation of the headline and manchete. (D) organization of centrioles and flagellum. (E-F) sperm formed.

Figure 2. (I) head without distinction of acrosome. (II) midpiece. (III) principal (purple arrow) and final piece.

Figure 3. The agouti (*Dasyprocta* spp.) is a rodent found in the South America

