# ANATOMY OF MALE REPRODUCTIVE SYSTEM OF LEAF-NOSED BAT, HIPPOSIDEROS SPEORIS (SCHNEIDER): CHIROPTERA

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**Abstract**

The male reproductive system of Hipposideros speoris is fixed in 10% Formalin and used for anatomical study. The testes are ellipsoidal, post-abdominal and enclosed in a thick muscular sac (pubic capsule). The pubic capsule is large thick blackish pink in appearance and loose with external wrinkles. The epididymis closely abuts the testes on its dorsomedial aspect and is recognized into distinct caput, corpus and cauda epididymis. The male accessory reproductive organs comprise of a paired ampullae of Henle, a prostate, paired Cowper's glands and urethral glands. The penis increases in thickness with the tip directed cranially. The present study is based on the anatomical study of male reproductive system of Hipposideros speoris collected from Chandrapur, Maharashtra, India.

**Keywords**

Accessory glands, Anatomy, Bat, Epididymis, Hipposideros speoris, Reproduction, Testis.

## Introduction

The Order- Chiroptera comprises of two Suborders- Megachiroptera and Microchiroptera; Family- Rhinolophidae comprises two subfamilies- Rhinolophinae and Hipposiderinae. Racey (1975) in his review on the prolonged survival of spermatozoa in bats observed that reproductive tracts of several species of vespertilionid and rhinolophid bats store sperms in the uterus or oviducts of females and in the cauda epididymides and ductus deferens of males.

In Chiroptera, five types of tubules have been described in the caput epididymis of two vespertilionid bats, Pipistrellus mimus mimus and Pipistrellus ceylonicus chrysothrix and one type of tubule in corpus and cauda epididymis (Gopalakrishna et al., 1974

## Material Methods

The preserved specimens are used for the present work. This report is based on the study of Hipposideros speoris male bats which were collected from underground dark places nearby Chandrapur, India, throughout the year. The

collections were made once a month during the breeding activity of the male. The male reproductive systems of bats are photographed and display the anatomy of the testes, epididymis and accessory reproductive organs.

**Result Discussion**

The testis is ellipsoidal in shape and post-abdominal in position. The testes are enclosed in a thick muscular sac - the pubic capsule. The pubic capsule is large thick blackish pink in appearance and loose with external wrinkles. The reproductive patterns and breeding habits in emballonurid bats, Taphozous melanopogon (Sapkal and Khambare, 1983), Taphozous kachhensis (Sapkal and Deshmukh, 1985) and Taphozous georgianus (Kitchener, 1973; Jolly, 1990) reported a sharply restricted annual sexual cycle.

The epididymis closely abuts the testis on its dorsomedial aspect and is recognized into distinct caput and cauda regions and a thin inconspicuous corpus epididymis. The ductus deferens which emerges from the cauda epididymis is short in length and it en

**Conclusion**

The accessory reproductive organs are all distinctly cyclic varying in gross size, weight, histology and secretory activity (Pal, 1977; Bhatia, 1980). The penis is long and thick with the tip directed cranially. The accessory reproductive glands were investigated anatomically in the anadol squirrel, wild mice, and the Mongolian gerbil (Pintheiro et al., 2003; Cakir and Karatas, 2004; Mollineau et al., 2006).

**Figure captions**

Figure- Photograph of the dorsal view of the male genitalia of Hipposideros speoris shows peak activity of the testes. Note, the vas deferens joins the ampulla of Henle of the respective side. The duct of the Cowper's gland joins the urethra dorsally.

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