

## **Anatomy of the female reproductive system of Rusa deer (*Rusa timorensis*)**

### **ABSTRACT**

The study aims to present baseline data on the reproductive anatomy of a poorly known tropical deer species, Rusa deer (*Rusa timorensis*). The anatomy of female reproductive system is described using seven uniparous hinds, aged between four and eight years. The various reproductive structures were studied via standard descriptive methods. There was a significant difference in the length and width of both right and left ovaries. The left ovary was slightly larger than the right ovary which indicates that it is physiologically more active. The results of the study showed that the anatomy of female reproductive system of *R. timorensis* was similar to that observed in domestic ruminants except that the uterus did not have an interconual ligament and this implies that the uterine horns are anchored in such a way that sperm deposited into only one uterine horn of the Rusa deer will be transported to the other uterine horn (interconual transport). Unlike the red brocket deer and pampas deer, the cervix of *R. timorensis* was characterized by six cervical rings projecting into the cervical canal. This feature should be taken into account when designing effective instrumentation and techniques for transcervical passage of semen during artificial insemination in this species. The results from this study have provided baseline data on the reproductive anatomy of this vulnerable species, and the knowledge generated can be useful in the development of appropriate reproductive techniques in order to increase its population in captivity and also enable easy detection of its reproductive anomalies, thus strategies to propagate and conserve the species can be established.

**Keyword:** Anatomy; Female; Reproductive system; Rusa deer, Timorensis