

**THE INFLUENCES OF ANIMAL RESTRAINT ON THE RECTAL
TEMPERATURE, RATE OF PULSES AND RESPIRATION,
HEMATOLOGICAL PROFILES AND BLOOD
CHEMICAL CHANGES OF RUSSA DEER**

(Cervus timorensis - Blainville 1822)

by

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ABSTRACT

Indonesia is one of the important countries in the world from the point of view of biodiversity and therefore there have been many programmes going on for its management carried out by Government as well as non governmental organisations.

Russa deer (*Cervus timorensis*) is one of indigenous wild animal distributed mainly in the eastern part of Indonesia that can be domesticated for pet or zoo animals. The meat is tastier than beef and mutton so that the animal is being hunted for its meat, also for velvet and antler. Effort to domesticate the Russa deer has not been successfully done in large scale, due to high mortality rate after capture or restraint. This study is aimed to observe the changes of physiological values namely rectal temperature, pulses, respiration, haematology, and blood chemical composition of russa deer captured by physical as well as chemical restraints.

Thirty-six of adult russa deer in three different location namely Camplong – NTT, Taman Safari Indonesia in Bogor – West Java, and private properties around Bogor, were used in this study. The restraint method applied were manually capture (physical restraint) and general anaesthesia using blow-pipe containing anaestheticum tiletamine-zolazepam (zoletil R virbac) dose 3-5 mg/kg of body weight (chemical restraint). Data collected in this study were temperature, pulses, respiration and blood samples which were measured three times in 15 minutes intervals, and analysed by nested design. This study conclude that animal boundary or animal movement limitation influences greatly the level of skeletal and cardiac muscle activities. Also the duration of restraint influence significantly the LDH values ($p < 0.01$) which correlated to the degree of capture myopathy.