



## Sperm motility of Brazilian-tapir (*Tapirus terrestris*) pre and post-thawing

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The Brazilian tapir (*Tapirus terrestris*) is listed as endangered in the Red List of IUCN, therefore, it is important to have reproductive management with the aim of maintaining the maximum genetic diversity. The present study had the goal to describe the andrological parameters in the species, as well as collaborating with the development of assisted reproduction techniques, which could contribute to its conservation. Nine adult males from Itaipu Binacional were utilized, four of which kept captive at the Biological Refuge Bela Vista in Foz do Iguaçu – PR, Brazil, and five at the Regional Zoo, in Hernandarias, Paraguay. The animals were submitted to chemical restraint through the association of ketamine hydrochloride, detomidine hydrochloride, butorphanol tartrate, and atropine hydrochloride, all of which administered via IM. Semen collection was performed by means of an electroejaculation machine (PT Electronics™, Boring, OR, USA), with a specific probe for tapirs (5.2 cm diameter), following the protocol described by Pukazhenthii *et al* (2011). Samples were obtained from four of the nine males. The semen collected was divided into two identical samples, and a subsequent dilution in a 1:1 proportion using the following diluents: Botusemen™ and INRA96™, followed by their centrifugation and discarding the supernatant. The precipitate were resuspended by using the freezing diluents Botu-crio™ and INRA96™ + egg yolk, followed by bottling in 0.5 straws. Four protocols were used for the semen cryopreservation, denominated according to the diluent utilized, followed by the cryoprotectant, making the following protocols: BB (Botu-semen + Botu-cryo), BI (Botu-semen + INRA 96 with egg yolk), II (INRA96 + INRA96 + egg yolk) and IB (INRA 96 + Botu-cryo). Each one of the samples had its motility (%) evaluated right after the semen collection. The cryopreservation of the samples was performed through programmed curve for equine semen on proper machine (TK-3000, TK, Uberaba – MG), and stored in liquid nitrogen for further analysis. The thawing and analysis of the samples was realized at the Laboratory of Semen Biotechnology and Andrology, Department of Animal Reproduction, at FMVZ – USP, São Paulo, being evaluated about their motility (%) by means of computerized system of sperm analyses (CASA – Computer Assisted Sperm Analyses; Hamilton Thorne) 10 minutes after thawing. Results are presented as means ± standard error of the mean. The following total motility pre-thawing results were obtained: BB- 23,75±7,46; BI- 47,5±11,27; IB- 53,75±11,27; II- 62,5±11,08; on the other hand, post-thawing results were: BB-12,5±4,27; BI- 9,75±4,0; IB- 11,25±5,46; II-12,5±4,19. As observed, the protocols showed similar results considering sperm motility after the cryopreservation, making them feasible for tapir semen cryopreservation.

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