

Lesions in phallus tissue of juveniles *Caiman latirostris* in captivity

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Abstract: Main function of the intromittent phallus is to facilitate internal reproduction by allowing focused sperm delivery to the female reproductive tract. Therefore, phallic lesions could jeopardize the mechanics of copulation by interfering with male/female tissues interactions and/or insemination, thus reducing an individual's potential fecundity. Our objective was to describe the morphology and frequency of male penile lesions in juvenile *Caiman latirostris* hatched and raised in captivity for 2 years. We investigated three elements of crocodylian phallus anatomy that intromit into the female cloaca during copulation: the shaft, glans cuff, and glans tip in n=46 males (Average total length: ~1 m long). Sixteen (34.8%) presented phallic lesions (petechiae) on the dorsal or ventral shaft. Similar shaft lesions (petechiae) have been reported on juveniles *Alligator mississippiensis* phalli, associated with herpes crocodile virus HV1. In order to better understand these infection-related lesions, in the future we must perform a histological analysis to evaluate lymphoid aggregates presence and virus detection with PCR. Of those 16 caiman, five also presented structural defects on the glans cuff, an inflatable structure that putatively produces a copulatory lock and seal during mating. The cause of these glans malformations may be related to interactions with enclosure environment or damaging peer interactions. Potential impacts on husbandry and conservation will be discussed.

Keywords: Broad-snouted caiman; Cloaca; Petechiae

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