Macroscopic morphology of the partridge phallus *Rhynchotus rufescens*

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Generally, in birds, few groups present erectile organs for copulation. According to current literature, the tinamous phallus is similar to that of anatids and in the genus Tinamus and Rhynchotus, it is spiral. Once there were few scientific woks concerning the phallus of Rhynchotus rufescens, however, it has recently become interesting to study this partridge's sexual organ. In this work, ten adult male partridges were euthanized with ethyl ether and then their genital systems were analyzed macroscopic and mesoscopic. The partridges were positioned in dorsal decubitus and a sagittal median ventral incision was made from the rectum to the sewer. The phallus was extracted and weighed and the genital structures were observed and measured using a stereoscopic microscope. Subsequently, the organs were photographed and described. Results: The partridge has a developed phallus located at the sewer and it is constituted by three parts: coprodeum, urodeum and proctodeum. The proctodeum is the most caudal compartment of the sewer and contains ventrally the phallic body (phallus). At the cranial part of the proctodeum mucosa surface, the uroproctodeal delimitated fold is found. This structure separates the urodeum from the proctodeum. The phallus is located inside of the proctodeum and it is lightly dislocated to the right side of the median line, which is evident from the median portion of proctodeum ventral part. The partridge phallus is short, thick, spiral and intromittent (phallus protrudens). Thus, it depends on the presence of a reversible tubular structure. Moreover, the partridge phallus presents fibrous bodies and a groove that projects itself to the surface of the phallus reversible portion. At the erection moment, the phallus base occupies almost all the sewer holes forming first, a U-shaped slit. Afterward, the phallus projects itself cranially to the caudal left direction and then it curves cranially. The intumescence occurs by lymphatic ingurgitation, which results in the enlargement of phallus diameter and length. The phallus extremity is the last region to be ingurgitated. In the partridge, the erected phallus is spiral presenting two or three turns. The phallus surface is formed by a thin layer of dense conjunctive tissue, which constitutes the fibrous capsule that involves the entire organ. When outstretched, the partridge phallus measures around 8.17 ± 2.48 cm in length. Nevertheless, when convoluted and in erection, it forms a cylindrical spiral that measures 3.00 to 4.00 cm in length by 8.00 mm in diameter and it is formed by two rigid fibrous bodies. The left one, or reversible portion, is much more developed than the right one, the fixed part, and convoluted to the left. Both fixed and reversible parts are fixed by ligaments. The partridge phallus is similar to those found in ducks and geese, except for the length, which is conspicuously smaller.