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Research Title : *Urogenital systems in some Squamates at the Western Region of Saudi Arabia*

الجهاز البولي التناسلي في بعض الحرشفيات بالمنطقة الغربية من المملكة العربية السعودية

Descriptipn : The urinogenital system of *Bunopus tuberculata*, *Chamaeleo chamaeleon orientalis* and *Psammophis schokari* has been investigated. The kidney in the three species is composed of nephric units. In *Bunopus*, the 1 nephric unit consists of a Malpighian body open into a collecting tubule. The latter is built up of a double-walled Bowman's capsule and a central glomerulus. The Malpighian body leads into a short neck segment which is lined by cuboidal cells, most of which are ciliated. The neck leads to the long proximal convoluted segment which is lined by short columnar cells with brush border. The short intermediate segment is lined by short ciliated cuboidal cells and pyramidal cells. The wide distal convoluted segment is lined by cuboidal cells. The collecting tubule is lined by columnar and short columnar cells. During the breeding season, the terminal segments and the collecting tubules in the male kidney form the sexual segment. The nephric unit in *Chamaeleo* consists of the same segments as in *Bunopus*, but the Malpighian bodies are larger, more numerous and of different shapes. The proximal and distal convoluted segments are longer than those in *Bunopus*. Moreover, the lining epithelium of the different parts of the tubule is slightly shorter and thinner. The terminal segments in the male form the sexual segment. The nephric units in the kidney of *Psammophis* are much more numerous and longer than the corresponding ones in *Bunopus* and *Chamaeleo*. The terminal segment forms the sexual segment. The testis in *Bunopus* is surrounded by a tunic albuginea. The seminiferous tubules are separated by groups of large interstitial cells. The seminiferous tubule is lined with spermatogenic cells arranged in an irregular pattern. Sertoli cells are observed. The tunic albuginea of the testis of *Chamaeleo* is thinner than that of *Bunopus* and the seminiferous tubules are more crowded. The spermatogenic cells lining the seminiferous tubules are arranged in a regular pattern. Sertoli cells are also observed. In general, the spermatogenic cells are smaller than in *Bunopus*. The seminiferous tubules in the testis of *Psammophis* are larger than those in the testis of both *Bunopus* and *Chamaeleo*. The germinal cells are arranged in a regular pattern as in the latter. The interstitial cells are more numerous than in both *Bunopus* and *Chamaeleo*. - The ovary of *Bunopus* is invested by a thin peritoneal layer followed inwards by a thin layer of fibrous connective tissue and a germinal epithelium respectively. There are two germinal beds. The