

HISTOLOGICAL AND HISTOCHEMICAL OBSERVATIONS ON OVIDUCT OF LAYING AND NON-LAYING EMU BIRDS (*DROMAIUS NOVAEHOLLANDIAE*)

K. VIJAYAKUMAR¹, S. PARAMASIVAN² & N. MADHU³

^{1,3}Postgraduate scholar, Department of Veterinary Anatomy and Histology, Veterinary College and Research Institute,
Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu. India

²Associate Professor, Department of Veterinary Anatomy and Histology, College and Research Institute,
Namakkal, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu. India

ABSTRACT

The microanatomical observation was carried out on oviducts of 12 mature female emu birds at their non-laying (n=6) and laying (n=6) stage. The funnel shaped part of the infundibulum was devoid of mucosal folds. In the tubular part the folds were relatively well developed and showed secondary and tertiary folds lined by pseudostratified ciliated columnar epithelium with goblet cells. The magnum showed tall and broad mucosal folds with secondary folding. The secondary mucosal folds evidenced the epithelial invaginations into the lamina propria of laying birds. The tubular glands were more in number and closely packed together in all mucosal folds of the magnum in laying emu birds. The secondary folds were seen branching from the primary mucosal folds at various heights. The wall of the shell gland was thicker than that of the magnum and the isthmus. The mucosal folds in the shell gland were numerous numbering more than 50 in laying emu birds. The shell gland region was highly vascular with large arteries and veins observed between the muscle layers. A secondary plexus of smaller arteries and veins were observed in the lamina propria at the base of the mucosal folds. The mucosa of the vagina was composed of pseudostratified ciliated columnar epithelium. The lining of the vaginal folds was a combination of ciliated, non ciliated, vesicular cells. The goblet cells in the epithelium of mucosal folds reacted strongly for PAS staining. The microanatomy of oviduct of emu bird was compared to that of other avian species.

KEYWORDS: Emu, Uterus, Oviduct, Histology, Histochemistry

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