

Akkanee Pewhom 2014: Histological Structure of the Reproductive Organs of Supachai's Caecilian *Ichthyophis supachaii* Taylor, 1960 (Amphibia: Gymnophiona). Master of Science (Zoology), Major Field: Zoology, Department of Zoology. Thesis Advisor: Associate Professor Kannika Chatchavalvanich, M.S. 98 pages.

The histological structure of the reproductive organs in adult Supachai's caecilians (3 males and 5 females) have been studied. In males, each testis lobe consists of numerous lobules where the Sertoli cells and the groups of germ cells are located their germ cysts. For each cyst, all germ cells are found to be at the same stage of differentiation (1. primary spermatogonia 2. secondary spermatogonia 3. primary spermatocyte 4. secondary spermatocyte 5. spermatid and 6. spermatozoa). We found that the different cysts consist of the germ cells at different developmental stages. Mullerian duct transformed to be the Mullerian gland which consists of numerous simple tubular glands arranged in a centripetal manner around the circumference of the central duct. The tubular gland has 3 types of cells; 1. secretory cell 2. ciliated cell and 3. amoeboid cell. The central duct's epithelium lining is simple low columnar epithelium. In females, the ovary consists of the germ cells at 4 stages; oogonia, previtellogenic follicle (early previtellogenic follicle and late previtellogenic follicle), vitellogenic follicle (early vitellogenic follicle and late vitellogenic follicle) and atretic follicle. In this study, the corpus luteum could not be found in any specimen. The oviduct is divided into 2 regions (anterior and posterior portion). The anterior portion bordered with 2 types of epithelium one half circumferenced by simple columnar epithelium and another half by villus-like projection. Under epithelium layer, muscularis and serosa layer can be found. For the posterior part is divided into 4 layers (mucosa, submucosa, muscularis and serosa). Its mucosa layer forms rugae structure and bordered with simple cuboidal epithelium.

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Student's signature

Thesis Advisor's signature