ABSTRACT

AIDELL FITRI RACHMAWATI. Morphological study on the Female Reproductive Organ of Malayan Pangolin (*Manis javanica*) with Special References on the Characteristic of Follicular Development and Distribution of Carbohydrates in the Ovary. Under direction of CHAIRUN NISA' and ITA DJUWITA

The study was aimed to acquire data on the morphology and morphometry of the female reproductive organ of Malayan pangolin and to identify characteristic of follicular development and distribution of carbohydrates in the follicle of ovary. The female reproductive organs were observed macroscopically and their histological characteristic were investigated by general histological procedure. The division of follicular development performed based on the shape and layers of granulosa cells in follicle, the thickness of zona pellucida, and the presence of antrum folliculi. The identification of acid and neutral carbohydrates distribution in the follicle was performed using alcian blue (AB) pH 2.5 and periodic acid Schiff (PAS) staining respectively. The collected datas were analyzed descriptively. The result of the study showed that Malayan pangolin have a bicornuate uterus. Their mucosa of the cervix divided into primary, secondary and tertiary folds. Both ovaries have ovoid/ellipsoidal in shape and their medulla filled with the large amount of interstitial secretory cells. Follicular development in the ovary is devided into 10 stages. Stages 1-2 is primordial follicle, stages 3-4 is primary follicle, stages 5-7 is secondary follicle, and stages 8-10 is tertiary follicle. The amount of developed follicle in the left ovary is higher than in the righ ovary. Acid carbohydrate begin to appear in zona pelucida of follicle type 5 and the neutral carbohydrate begin to appear in extracellular matrix of follicle type 4 with the very low intensity of positive reaction.

Keywords: Malayan Pangolin, female reproductive organ, ovary, follicular development, carbohydrate distribution.