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MORPHOLOGICAL AND HISTOLOGICAL OBSERVATIONS OF OVARY OF
THE STELLER SEA LION (*EUMETOPIAS JUBATA* SCHREBER)

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An experiment of 7-month duration (November, 1983 to April, 1987) with 29 pregnant and 13 non-pregnant Steller sea lions was conducted to determine the weight, gross morphology and histology of ovaries. The average weights of the ovary with corpus luteum graviditatis (CLG), the ovary without CLG and the non-pregnant female were 21.9g and 5.8g, respectively.

The maximum diameter of the follicles was 7.5 mm. The number of follicles in the ovaries of pregnant female with CLG was similar to that in the ovaries without CLG from November until January. However, during the succeeding months, more follicles were found in the ovaries without CLG than in the ovaries with CLG. In this period, follicles 5 mm in diameter were absent from ovaries without CLG but were present in females aged more than 8 years old. Follicles 3 mm in diameter were not observed in females more than 15 years old.

There was no characteristic change of the CLG during the initial observation period. However, from April onwards, a marked increase in the diameter was observed. The average diameter of the CLG was 26.1 mm. It was also observed that there was no correlation between the age of the animal and the CLG diameter.

The corpus albicans (CA) and corpus luteum spurium (CLS) cannot be differentiated morphologically. Both can be found in the ovaries of non-pregnant and pregnant females without CLG.

In the cortex and medulla, interstitial cells were found clustered together to form the interstitial glands. These cells were polygonal in shape and acidophilic granules and vacuoles were found in the cytoplasm. The cells were bigger and more spherical in the medulla than in the cortex.

Regressing corpus luteum was also observed. Initially, the luteal cells of the CLG consisted primarily of lipid droplets. They gradually disappeared and were replaced by connective tissue followed by increased vascularization. Vacuolization and pyknosis occurred. The nuclei and the cytoplasm of the luteal cells disappeared. Similarly, hyalinization occurred in the connective tissue of the corpus albicans but the remnants of the cytoplasm of the luteal cells remained.

One pregnant female was observed to have a CA-like structure in the ovary. The luteal cells still existed but degeneration was more advanced than in the CLG. It is suggested that this CA-like structure might be a corpus luteum spurium.