
Investigation of Birth Productivity in *Myotis*

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An attempt was made to locate placental scars on the uteri of *Myotis*. The hypothesis was that, in specimens collected during hibernation, with the uteri in a progravid phase, scars should be present on the endometrium from the placental attachment of the previous birth season. The scars could presumably be counted and a determination of the birth productivity could be demonstrated.

The *Myotis* were collected in November, December, and January while hibernating in Alabaster caverns in Woodward and Major counties. They were found hanging in large numbers, from the lower ceilings of the caverns. The temperatures of the caverns average 12 degrees Centigrade, with only a slight variation throughout the winter months.

Fifteen female specimens were isolated for three weeks during hibernation and 12 of these were found to contain motile sperm in their vaginas. Copulation evidently takes place at the beginning of hibernation and the sperm remain active throughout this time.

The uterus becomes modified for the implantation of only one ovum. The stored sperm are able to fertilize the ovum upon its release in the spring (1,2).

The gestation period of *Myotis* is estimated between 50 and 60 days and normal birth requires 15 to 30 minutes, with breech presentation the usual rule. The placenta and membranes are more often discarded than eaten (3).

Observation of microsections on 24 specimens failed to reveal disturbed areas of the endometrium.

LITERATURE CITED

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 2. _____, 1944. Growth of the ovarian follicle and ovulation in *Myotis*. *Am. J. Anat.* 74: 129-166.
 3. _____, 1945. Notes on breeding behaviour of *Myotis*. *J. Mammal.* 26: 23-33.
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