

高原鼠兔 (*Ochotona curzoniae*) 冬季自死亡率

王学高

ON THE NATURAL WINTER MORTALITY OF PLATEAU PIKA

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ABSTRACT

After the study of the behaviour ecology of plateau pika, *Ochotona curzoniae*, with Dr. A. T. Smith, the author began to investigate the natural mortality of the marked population within and outside the former sampling plot, day by day. The main results are as follows.

1. Up to Nov. 11, 1985, the natural death rate of the marked pikas was 48.40%. On Jan. 18, 1986, the death rate was increased to 78.20%. Most of the pika population were dead during the severe winter. Only a few individuals, namely 4.48% in the plot, could pass the winter, and entered into the reproductive performance in spring. And most of them belong to the offspring of the first litter of their parent.

2. There was a higher survival rate in the young pika coming from the first litter, as compared with those from the second litter. The mortality rate of the second litter was significantly higher than that of the pikas from the first litter ($t > t_{0.01}$).

3. There existed a significant sexual difference in mortality in the offsprings of the first litter; but no significant difference in those of the second litter.

4. The span of life in natural condition was within 270 days in the pikas born and marked in 1985. But 30.77% of the individuals born and marked in 1984, lived for 577—594 days. In a special case, a pika's natural life-span reached 957 days.