

COURTSHIP BEHAVIOR AMONG WHITE-TAILED AND BLACK-TAILED JACKRABBITS

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This paper represents a portion of a research project on behavior of black-tailed and white-tailed jackrabbits, *Lepus californicus* and *L. townsendii*, of the Castle Rock area of Eastern Oregon. The full study is described elsewhere (Blackburn, 1968).

The observations made of jackrabbit courtship behavior from April through July, 1967-68 were quite similar to those described by Severaid (1941), Janson (1946), Lechleitner (1959), Haskell and Reynolds (1947), and Pentrelli (1968).

I observed both white-tailed and black-tailed jackrabbits in varying habitat and behavioral situations. This provided the opportunity to extend many of the reports just mentioned.

Both Pentrelli and Lechleitner reported black-tailed jackrabbits as having very intense courtship behavior involving circling, male and female approaches, and long chases. In this study urine emission was observed during the jumping and chasing activity. This complex behavior involving combinations of all the above listed components was observed to last from 5 to 20 minutes. Copulation usually followed. After copulation the male jackrabbit was observed on several occasions to jump slightly backwards, fall to the ground, emit a hissing squeal and leap up again renewing the chase with subsequent copulations of up to four times.

Although only a few observations of courtship among white-tailed jackrabbits were possible in this study, their courtship behavior was observed to be basically the same as that of black-tailed jackrabbits, with the exception that jumping behavior was more pronounced.

Tinbergen (1952) states that displacement behavior is caused or motivated by a surplus of stimulus or drive. A jackrabbit, highly excited during escape or reproductive behavior, may exhibit this type of activity. I observed five male black-tailed jackrabbits in pursuit of one female. After sighting me, two of the males left the pack and began feeding. They fed vigorously and did not attempt to leave the area upon my approach. Shortly afterwards, two other males abandoned the female and began attempting to copulate with each other. Upon collection, both had their penises fully extended. Both of these behavior types suggest a displacement type of behavior. A single remaining male was observed to copulate twice with the female. The entire area surrounding this field of activity was covered with hair, the presence of which suggested fighting.

I thank the Bureau of Land Management, Vale, Oregon, for their support of this study. It was conducted under the guidance of the Department of Zoology, University of Idaho, Moscow, Idaho.

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Blackburn, Del F. 1973. "COURTSHIP BEHAVIOR AMONG WHITE-TAILED JACKRABBITS AND BLACK-TAILED JACKRABBITS." *The Great Basin naturalist* 33, 203–204.

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