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## Two Species of Great Basin Orthoptera New to Colorado

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For several years the University of Colorado Museum has been making a faunal survey of Dinosaur National Monument. Collections of Orthoptera were made in several parts of the Monument during the seasons of 1948, 1949, and 1951. Although the collections are not complete it seems desirable at this time to report the occurrence of *Pedioscirtetes nevadensis* Thomas (Acrididae) and *Capnobotes fuliginosus* (Thomas)

(Tettigoniidae) in Colorado. These species have not been previously recorded from the state, nor even within hundreds of miles of the collecting locality.

Dinosaur National Monument is in Colorado and Utah, surrounding the canyons of the Yampa and Green Rivers above and below the confluence of the former with the latter. Most of the Monument area is within Colorado. Collections have been made at various points in the area from the floor of the canyon, at an elevation of approximately 5,000 feet above sea level, to Round Top, the highest point on the south rim of the Yampa Canyon, at an altitude of 8,258 feet.

Sage brush desert invades the general area from the west, climbing up the gradual ascent of the Yampa Plateau from the south even to the edge of the high rim. Where conditions are favorable scattered stands of aspen interrupt the sage brush on the Plateau but sage brush is the dominant form of vegetation. At the edge of the canyon rim this comes into abrupt contact with Douglas fir and other members of a mesic plant community, this vegetation growing on the north-facing slope immediately below the canyon rim. Here we find Great Basin species of Orthoptera in contact with those typical of the montane zone of the Southern Rocky Mountains. Thus it is quite understandable that one of our new records is from Round Top, one of the highest points in the Monument. In spite of the elevation, Round Top is within the edge of the Great Basin Desert, which, according to Tinkham (1944), extends into northwestern and west central Colorado. The distribution of sage brush up to the canyon rim is therefore quite significant.

Three specimens of *Pedioscirtetes nevadensis* were collected, all at the edge of the sage brush area on Round Top. All are now in the University of Colorado Museum. Two of these are juvenile—a fifth instar female, July 18, 1951, and a fourth instar female, July 19, 1951, both collected by Gordon Alexander. An adult male was collected September 13, 1951 by Richard and Anne Bingham. Previous published records of this species, which appears to be nowhere common, are from northern Arizona, Nevada, and Idaho (Ball et al., 1942). Mr. James A. G. Rehn has kindly informed us by letter that he has

collected the species on the Paunsaugunt Plateau near Bryce Canyon, Utah. Its occurrence in northwestern Colorado, therefore, represents a considerable extension of its known range.

The occurrence of *Capnobotes fuliginosus* in northwestern Colorado is even more remarkable since it has previously been thought to occur no further north than in the southern portions of the Great Basin Desert. The nearest recorded locality is in southwestern Utah (Tinkham, 1948). While we may with more reason expect to find *Capnobotes occidentalis* (Thomas) in Colorado the latter has not yet been reported. The specimens we are recording are typical *fuliginosus*, both in size and color. When *occidentalis* is taken in Colorado it will probably be found in the piñon-juniper region of the southeastern or southwestern part of the state.

The specimens of *Capnobotes fuliginosus* collected in Dinosaur National Monument are three adults, two females collected by H. A. Fehlmann and a male collected by H. W. Dick, all now in the University of Colorado Museum. Two were collected in Castle Park, in the floor of the Yampa Canyon, a female on July 12, 1949 and the male, July 15, 1949. It is interesting to note that the former was collected on the first ascent of the Crow's Nest, a precipice rising from the Yampa Canyon floor at Castle Park. The second female was collected July 19, 1949 at Pat's Hole (at the confluence of the Yampa and Green Rivers).

The discovery of these Great Basin Desert forms in northwestern Colorado suggests that this desert fauna is as likely to appear in the northwestern as in the southwestern part of the state. Further collections will probably indicate significant range extensions of other members of this fauna into the region being investigated.

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