BULLETIN OF THE UNIVERSITY OF UTAH

Volume 29 February 28, 1939 No. 6

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BIOLOGICAL SERIES, Vol. III, No. 10

PUBLISHED BY

THE UNIVERSITY OF UTAH

SALT LAKE CITY

THE UNIVERSITY PRESS
UNIVERSITY OF UTAH
SALT LAKE CITY

A New Pocket Gopher of the *Thomomys quadratus* Group from the Northern Great Basin Region

By Stephen D. Durrant

Critical examination of specimens of *Thomomys quadratus* from Utah has brought to light the existence of an hitherto unnamed race from the Raft River region in the northwest corner of the state and contiguous areas of Idaho and Nevada. Extensive material from northeastern Nevada in the collection of Ralph Ellis, of Berkeley, California, has been graciously made available, as well as other specimens from Utah through the courtesy of J. S. Stanford of the Utah State Agricultural College at Logan, Utah.

The newly named race resembles *Thomomys quadratus fisheri* and *Thomomys uinta* in general color and size but differs in details, especially in cranial features. The new form may be known as:

Thomomys quadratus gracilis, subsp. nov.

Type.—Male, adult, skin and skull; No. 44866, Museum of Vertebrate Zoology, University of California; Pine Canyon, 6600 ft., 17 mi. NW Kelton, Box Elder County, Utah; July 12, 1930; collected by Annie M. Alexander; original No. 676.

Range.—Northwestern Utah, south-central and southwestern Idaho, south of the Snake River, and northeastern Nevada.

Diagnosis.— Size: Medium (see measurements). Color: Upper parts, Buckthorn Brown; lighter on sides and grading to Light Buff on under parts; pectoral and inguinal regions Light Ochraceous Buff; (Capitalized color terms according to Ridgway, Color Standards and Color Nomenclature, Washington, D. C., 1912); nose and postauricular patches grayish black; chin white. Front claws long and slender. Skull: Long and slender; nasals long and truncate posteriorly; rostrum long and narrow; distance across zygomatic arches slight; zygoma relatively weak, and slightly bowed out posteriorly; auditory bullae large, inflated ventrally and truncate anteriorly; basioccipital wide; interpterygoid space V-shaped; glenoid fossa long and narrow; palatal pits deep; upper incisors narrow.

Measurements.— Average and extreme measurements of 4 adult males and 2 adult females from the type locality are, respectively, as follows: Total length, 204 mm. (210-194), 190 (194-185); length of tail, 53 (63-47), 58 (61-54); length of hind foot, 28 (28-27), 27 (27). Skull: Basilar length of Hensel, 31.5 (33.5-30.3), 29.7 (29.9-29.5);

greatest length of nasals, 13.4 (14.2-12.9), 12.0 (12.0-11.9); zygomatic breadth, 21.7 (22.0-21.1), 19.7 (19.7); mastoidal breadth, 18.3 (19.0-17.8), 17.3 (17.6-16.9); least interorbital breadth, 6.4 (6.5-6.3), 6.4 (6.5-6.3); alveolar length of upper molar series, 7.6 (7.9-7.3), 7.3 (7.4-7.2); extension of premaxillae posterior to nasals, 1.3 (1.7-1.0), 1.2 (1.4-1.1); length of rostrum, *15.4 (16.4-14.7), 14.0 (14.0); greatest breadth of rostrum (anterior to zygomata), 7.2 (7.5-6.7), 6.5 (6.6-6.4); width of upper incisors at cutting edge, 3.9 (4.0-3.6), 3.7 (3.9-3.5).

Comparisons.—Compared with topotypes of *Thomomys quadratus fisheri*, *T. q. gracilis* differs as follows: Color a trifle darker on upper parts; under parts lighter; postauricular patches larger and darker; claws on front feet longer and more slender; tail longer; hind foot longer. Skull: Longer and narrower; nasals longer; extension of premaxillae posterior to nasals longer; zygomatic and mastoidal breadths less; rostrum longer and narrower; interpterygoid space narrower; basioccipital wider; upper incisors narrower; anterior margin of auditory bullae more nearly truncate and not as rounded.

Thomomys q. gracilis differs from near topotypes of *T. q. uinta* as follows: Color uniformly lighter throughout; nose and face darker: postauricular patches lighter; inguinal and pectoral areas more buffy; external ear opening smaller and of different shape, the pinna being more pointed and the inner margin of pinna pigmented as opposed to unpigmented. Size greater; tail longer; hind foot longer. Skull: Nasals longer, truncate posteriorly rather than deeply emarginate, and less flaring distally; zygomatic and mastoidal breadths relatively narrower; extension of premaxillae posterior to nasals greater; rostrum longer and narrower; upper incisors narrower.

Comparisons of *Thomomys q. gracilis* with topotypes of *T. q. quadratus* show the following differences: Color: Lighter throughout; postauricular patches much smaller and lighter in color; chin and pectoral regions lighter. Claws on front feet more slender; tail longer. Skull: Longer but narrower; nasals longer; mastoidal and zygomatic breadths relatively and actually less; rostrum relatively and actually longer but actually narrower; interpterygoid space narrower and more V-shaped than U-shaped; palatal pits deeper; extension of premaxillae posterior to nasals less; auditory bullae larger and more inflated ventrally; basioccipital wider and not as definitely triangular; glenoid fossae narrower; zygomatic arch weaker and less angular; zygomatic process of maxilla much lighter and narrower; upper incisors narrower.

*Note: Length of rostrum measured from suture between maxilla and lacrimal to median distal end of nasal.

Compared with series of *Thomomys q. bridgeri*, from southern Idaho and one topotype, *Thomomys q. gracilis* is remarkably smaller in all measurements and lighter in color. The skull is narrower and less angular. The diagnostic features of *T. q. gracilis* are: Larger, more inflated auditory bullae; wider basioccipital; narrower and longer rostrum; weaker, less angular zygomatic arches and narrower upper incisors.

The comparisons of *Thomomys q. gracilis* with topotypes of *Thomomys q. falcifer* show the following differences: Color uniformly darker throughout; claws on front feet shorter; hind foot longer; external ear opening much smaller. Skull: Shorter and narrower; nasals shorter, straight and not constricted at middle; zygomatic and mastoidal breadths less; zygomatic arch weaker, and not so wide spreading; zygomatic process of maxilla markedly weaker; rostrum shorter but narrower; extension of premaxillae posterior to nasals less; basioccipital wider; auditory bullae more globular ventrally; upper incisors shorter and narrower; palatal pits deeper.

Remarks.—Bailey (1915:114) referred the specimens from Kelton, (7 miles north) to *T. uinta*, and Hall (1931:4) studied the series from Pine Canyon, 17 miles northwest of Kelton, Raft River Mountains, Box Elder County, Utah, and placed them with *T. q. fisheri*. In the same paper he also referred to material from Albion, Idaho, and was in agreement with Bailey (1915:116) that specimens from there were intergrades between *T. q. fisheri* and *T. uinta*. This necessitated the reduction of *T. uinta* to subspecific rank under the previously described species *T. quadratus*, and the author is in agreement on the point of giving *uinta* subspecific rank. Larger series and further study now show that these specimens from south-central and southwestern Idaho are referable to the new subspecies *gracilis*, while those of the *quadratus* group from southeastern Idaho are referable to the subspecies *uinta* and *bridgeri* (Whitlow and Hall, 1933:259). Borell and Ellis (1934: 28) regarded the gophers from the Ruby Mountains, Elko County, Neveda, as intergrades between *T. q. fisheri* and *T. q. uinta*. A re-check of these specimens, and also those from Jarbridge Mountains, Elko County, Nevada, hitherto referred to *T. q. fisheri* (Bailey 1915:116; Hall and Davis 1935:400) now shows that they are referable to the subspecies *gracilis*. The material in the collection of the Museum of Vertebrate Zoology shows the range of *Thomomys q. fisheri* to be in eastern California and western Nevada, south from Plumas County to Alpine County, California; it occurs eastward into Washoe, Douglas and Ormsby Counties, Nevada. The populations from central Nevada, between the ranges of *T. q. fisheri* and *T. q. gracilis*, are referred for the present to *Thomomys q. falcifer*.

Specimens Examined.— Total number, 241, by localities as follows:

Idaho: *Owyhee County*: Reynolds Creek, 12 mi. S Snake River, 2; 1 mi. S Riddle, 3; South Fork Owyhee River, 4500 ft., 12 mi. N Nevada line, 8. *Twin Falls County*: S side Snake River, 2 mi. S Hagerman, 10. *Cassia County*: Albion, 10; Declo, 5; Mt. Harrison, 10-12 mi. S Albion, 5; Elba, 8; Raft River, 2 mi. S Snake River, 1. *Power County*: S side Snake River, 19 mi. SW American Falls, 2. (All in collection of Museum of Vertebrate Zoology).

Nevada: *Elko County*: Harrison Pass R. S., Green Mountain Canyon, Ruby Mountains, 10; W side Ruby Lake, 3 mi. N Elko County line, 5; Summit Secret Pass, 6200 ft., Ruby Mountains, 7; Steels Creek, N end Ruby Mountains, 1; Jerry Creek, N end Ruby Mountains, 1; Head Ackler Creek, N end Ruby Mountains, 1; Long Creek, South Fork, Ruby Mountains, 4; Three Lakes, Ruby Mountains, 10; ½ mi. N Jarbidge, 1; Summit between heads of Copper and Coon Creeks, Jarbidge Mountains, 9; (in collection of Ralph Ellis, Berkeley, California); Marys River, 5800 ft., 25 mi. N Deeth, 1; 6 mi. SW Mountain City, Cobb Creek, 6500 ft., 10; Goose Creek, 2 mi. W Utah line, 5000 ft., 11; 4-5 mi. E Ranier, Sulphur Springs Mountain, 1. (All in collection of Museum of Vertebrate Zoology). *White Pine County*: Willow Creek, 2 mi. S White Pine County line, Ruby Mountains, 9; W side Ruby Lake, 3 mi. S White Pine County line, 9; (in collection of Ralph Ellis); Cleve Creek, 8100 ft., Shell Creek Range, 22; Gleason Creek, 7500 ft., 25; E side Shellbourne Pass, 6800 ft., 17; 1 mi. E Illipah, 6100 ft., 3; Cottonwood Creek, 6400 ft., 7 mi. SW Illipah, 1; 3 mi. SW Hamilton, 7600 ft., 4; 2½ mi. SW Hamilton, 7600 ft., 2. (All in collection of Museum of Vertebrate Zoology).

Utah: *Box Elder County*: Etna, 6; Yost, 3; Park Valley, 3; (in collection of Utah State Agricultural College); Lynn Canyon, Raft River Mountains, 4; (in collection of Museum of Zoology, University of Utah); Pine Canyon, 6600 ft., 17 mi. NW Kelton, 7; (in collection of Museum of Vertebrate Zoology).

Contribution from the Museum of Zoology, University of Utah, Salt Lake City, Utah, and Museum of Vertebrate Zoology, University of California, Berkeley, California.