Great Basin Naturalist

Volume 48 | Number 2 Article 15

4-30-1988

Shrew and heteromyid records from the Great Basin of Oregon and Utah

Harold J. Egoscue
Grantsville, Utah

SHREW AND HETEROMYID RECORDS FROM THE GREAT BASIN OF OREGON AND UTAH

Harold J. Egoscue[1]

ABSTRACT.—Oregon records from Harney County establish a minimum altitudinal occurrence for the water shrew (*Sorex palustris*), identify an isolated population of the montane shrew (*Sorex monticola obscurus*), and provide an additional specimen of Merriam's shrew (*Sorex merriami*). Utah records extending the ranges in the southeastern part of the Bonneville Basin for the little pocket mouse (*Perognathus longimembris*), long-tailed pocket mouse (*Perognathus formosus*), and dark kangaroo mouse (*Microdipodops megacephalus*) are also given.

Studies in progress designed to determine the ecology of *Peromyscus* fleas in the Great Basin have resulted in the capture of many kinds of small mammals in addition to mice. Among them were three species of shrews from parts of southeastern Oregon, where few soricids have been reported, and three heteromyids, whose capture extends their ranges in western Utah.

Specimens mentioned, including examples of the associated small mammals identified to subspecies, were deposited in collections at the University of Utah, Salt Lake City.

***Sorex monticolus obscurus* Merriam.**—Two montane shrews of this subspecies were collected in the Trout Creek Mountains, an isolated range, most of which lies just north of the Nevada boundary in southeastern Harney County, Oregon.

An adult female (lactating, no embryos) was trapped 20 June 1970 on a dry, densely vegetated hillside at the head of a small tributary canyon of Big Trout Creek (elev. 2,022 m). The principal plants in order of abundance were big sagebrush (*Artemisia tridentata*), bitterbrush (*Purshia tridentata*), and snowberry (*Symphoricarpos* sp.), with a heavy understory of herbaceous plants.

The second specimen, an adult male, was caught 10 September 1982 near the headwaters of Big Trout Creek about 2.4 km north of the Nevada line (elev. 2,135 m). The traps were set streamside, where the dominant vegetation included willow, river birch, and other riparian plants. Besides deer mice, other small mammals caught here were the long-tailed vole (*Microtus longicaudus*) and least chipmunk (*Eutamias minimus*).

These records identify a previously unknown, apparently isolated population of *S. m. obscurus* located between Steen Mountains, Harney County, Oregon, and the Santa Rosa Mountains, Humboldt County, Nevada (see map by Hennings and Hoffman 1977).

***Sorex palustris navigator* (Baird).**—An adult female (no embryos) was collected 10 October 1983 at the mouth of Cottonwood Creek, a tiny stream flowing out of the east side of the Pueblo Mountains 11.3 km south of Fields, Harney County, Oregon (elev. 1,281 m). Almost the entire trapline was set streamside, but the only other mammals captured were *Peromyscus maniculatus*. Altitudinally, this is the lowest place on record where *S. palustris* has been taken in the Great Basin. The conditions here resemble those described by Hall (1946) for a place in Esmeralda County, Nevada, where water shrews were found at a much lower than normal elevation.

***Sorex merriami merriami* Dobson.**—An adult female (no embryos, molt to winter pelage in progress) was collected 25 October 1984 about 16 km south of Crane (elev. 1,318 m). My trapline was set on a steep, dry, talus and boulder-strewn hillside with numerous small ledges and several prominent basalt outcrops. The dominant plant was spiny hopsage (*Grayia spinosa*), with scattered horsebrush (*Tetradymia* sp.) and big sagebrush. Other small mammals trapped here were deer mice (*Peromyscus maniculatus* ssp.), canyon mice (*P. crinitus crinitus*), western harvest mice

[1]Box 787, Grantsville, Utah 84029

(*Reithrodontomys megalotis megalotis*), desert woodrats (*Neotoma lepida nevadensis*), bushy-tailed woodrats (*N. cinerea alticola*), sagebrush voles (*Lagurus curtatus pauperrimus*), and Great Basin pocket mice (*Perognathus parvus parvus*), all caught within 75 m of where the Merriam's shrew was trapped. With the possible exception of the bushy-tailed woodrat, the biota was typically Upper Sonoran. Lindsay and Perry (1977) reviewed what little was known about this shrew in Oregon when they reported the fourth record for the state.

***Perognathus longimembris gulosus* Hall.**—An adult male provisionally referred to this subspecies was obtained 29 March 1986 in Escalante Valley, 24 km west-southwest of Minersville, Beaver County, Utah, and about 100 m north of the Iron County line. This extends the range about 72 km southeast from localities in extreme southwestern Millard County as mapped by Hall (1981). See account of *Microdipodops megacephalus paululus* for other details about the area.

***Perognathus formosus incolatus* Hall.**—An adult male referrable to *P. f. incolatus* was collected 28 March 1986 about .2 km north of Black Rock, Millard County, Utah (elev. 1,418 m), a range extension well into the eastern part of the southern Bonneville Basin from the nearest localities in southwestern Millard County reported by Hall (1981). Traps were set among the boulders and extensive basalt ledges of an ancient lava flow. Dominant plants were horsebrush and rabbitbrush (*Chrysothamnus* sp.). Associated small mammals were the desert woodrat and deer mouse.

***Microdipodops megacephalus paululus* Hall & Durrant.**—Two adult males fitting the description of this subspecies (Hall and Durrant 1941) were caught 29 March 1986 in the northern end of Escalante Valley, 24 km west-southwest of Minersville, Beaver County, Utah, and about 100 m north of the Iron County line (elev. 1,550 m). This is a range extension southeastward of about 75 km from places in southwestern Millard County mapped by Hall (1981).

The mice were caught in low, semistabilized, vegetated dunes of fine, light-colored sand, where the dominant plants were rabbitbrush and four-winged saltbush (*Atriplex canescens*). Other small mammals caught here were the little pocket mouse, Ord kangaroo rat (*Dipodomys ordii cinderensis*), and deer mouse.

ACKNOWLEDGMENTS

I thank R. S. Hoffman, who confirmed my identifications of the Merriam's and montane shrews, and D. R. Johnson, B. J. Verts, and E. Yensen for their comments and suggestions on an earlier version of the manuscript.

LITERATURE CITED

HALL, E. R. 1946. The mammals of Nevada. University of California Press, Berkeley and Los Angeles. 710 pp.

———. 1981. Pages 601–1181 *in* The mammals of North America. Vol. 2. John Wiley and Sons, New York.

HALL, E. R., AND S. D. DURRANT 1941. Two new kangaroo mice from Utah. The Murrelet 22: 5–7.

HENNINGS, D., AND R. S. HOFFMANN 1977. A review of the taxonomy of the *Sorex vagrans* species complex from western North America. Occas. Papers Mus. Nat. Hist., Univ. Kansas 68: 1–35.

LINDSAY, S. L., AND A. E. PERRY 1977. An additional Merriam's shrew (*Sorex m. merriami*) from Oregon. The Murrelet 58: 17.