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A NEW WOODRAT FROM SOUTHWESTERN ARIZONA
AND A NEW ROCK POCKET-MOUSE FROM
NORTHWESTERN SONORA

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THE following descriptions are based on material collected in southwestern Arizona and northwestern Sonora during the fall of 1932 and the spring of 1933.

Coöperation with the Carnegie Desert Laboratory at Tucson greatly aided the field work in the region. Specimens for comparison were kindly loaned by the California Museum of Vertebrate Zoology and by the United States Biological Survey.

***Neotoma auripila*, new species**

TYPE.—Adult male (skin and skull), No. 66746, Division of Mammals, Museum of Zoology, University of Michigan; from the Agua Dulce Mountains, 9 miles east of Papago Well, Pima County, Arizona; taken October 3, 1932, by P. M. Blossom; original number 427. Beside the type there are 2 adults and 2 subadults from the same locality.

DIAGNOSIS.—A member of the *lepida* group with large ears; size about that of *Neotoma l. devia*; pelage long and silky; color decidedly buffy, especially sides and underparts; tail thinly haired and not sharply bicolor. Auditory bullae

large; posterior border of palate with a prominent median bead.

COLOR OF TYPE.—Upperparts Pinkish Buff¹ heavily overlaid by dusky; darkest on rump. Sides Pinkish Cinnamon extending on lower half of cheeks and over the hinder surface of the hind legs to the ankles, and across the upper base of the tail. The color of the sides shades into Light Pinkish Cinnamon on the underparts (except for small pectoral and inguinal spots of pure white) where it extends to the ankles on the fore and hind feet. Feet white. Tail thinly haired, Light Drab below, Fuscous above, not sharply bicolor.

MEASUREMENTS.—(In mm.) Type: Length, 285; tail, 142; hind foot, 28; ear from notch, 29; weight, 80 grams.

Skull: Basilar length, 33.4; zygomatic breadth, 19.3; interorbital breadth, 5.0; length of nasals, 13.3; length of incisive foramina, 7.7; length of palatal bridge, 6.7; alveolar length of upper molar series, 8.0. Two paratypes (one with broken tail): Length, 293, —; tail, 143, —; hind foot, 28, 27; ear from notch, 31, 27. Skull: Basilar length, 34.6, 33.1; zygomatic breadth, 20.1, 19.4; interorbital breadth 5.4, 5.1; length of nasals, 14.3, 14.0; length of incisive foramina, 7.2, 7.5; length of palatal bridge, 7.8, 6.7; alveolar length of upper molar series, 8.4, 8.2.

SKULL.—Compared with *devia* the skull is smaller and lighter; brain-case smaller and narrower posteriorly; bullae relatively larger; palate convex and more or less roughened, with a bead in median line on posterior border; upper edge of interpterygoid fossa more flaring in anterior part just behind the palate, but more constricted between interpterygoid processes; rostrum lighter; nasals narrower anteriorly; interparietals broader (nearly reaching laterally to junction between occipital and parietal) and shorter antero-posteriorly; skull somewhat more arched. Teeth relatively smaller, especially last molar. Compared with *goldmani* the skull is slightly larger; brain-case flatter on top; bullae relatively

¹ Capitalized names of colors refer to Ridgeway, R., *Color Standards and Color Nomenclature*, Washington: 1912, pp. i-iii, 1-43.

larger; posterior margin of palate convex, due to presence of a bead; space between interpterygoid processes narrower; upper incisors heavier; interparietals wider; supraorbital ridges more pronounced; interorbital constriction narrower; incisive foramina shorter and narrower; zygomata more sloping; skull less arched.

GEOGRAPHICAL DISTRIBUTION.—Known only from the type locality, 9 miles east of Papago Well (Agua Dulce Mountains) in Pima County, Arizona, and from Crow Butte in Yuma County, Arizona. Crow Butte as here named is a small isolated butte of black lava on the western side of the Cabeza Prieta Mountains, and separated from them by about $\frac{1}{4}$ mile of desert sand. It is 9 miles east of Tinajas Altas, Yuma County, Arizona, and 57 miles west of the type locality of *auripila*.

Geographically this species occupies a range intermediate between *devia* and *goldmani* and apparently is restricted to a rather small area in southwestern Arizona and probably northwestern Sonora.

The prevailing color tone of the rock habitat in the Agua Dulce Mountains is decidedly reddish. The extreme pinkish buff color of *auripila* suggests a correlation with the prevailing color tone of its habitat.

VARIABILITY.—In the series from the type locality there is little variability in skull and color characters except such as may be due to age. The interorbital width is rather variable, and one paratype differs from the others in being less buffy on the underparts. The young are grayer than the adults, but have sides distinctly buffy, nearly like the color of the sides in adult *devia*.

A single very old specimen from Crow Butte compared with the type series is less buffy on the sides and underparts, and has more gray above. The general color is paler. The skull is slightly larger and has prominent supraorbital ridges. The zymatic arches are nearly square. The space between the interpterygoid processes is wider. In the general shape of the skull, in the size and shape of the auditory bullae, and in

the presence of a bead on the posterior median border of the palate, the skull agrees with *auripila*. The characters of this specimen may be due to the extreme old age of the individual. Additional specimens may prove it to represent a new variety.

RELATIONSHIPS.—*N. auripila* is evidently most nearly related to *Neotoma lepida devia*, although it differs in numerous skull and color characters from any member of the *lepida* group. In color *auripila* is decidedly more buffy on the sides and underparts and is less gray above than either *devia* or *goldmani*.

Perognathus intermedius pinacate, new subspecies

TYPE.—Adult female (skin and skull), No. 67434, Division of Mammals, Museum of Zoology, University of Michigan; from Papago Tanks, Pinacate Mountains, Sonora, Mexico; taken April 26, 1933, by P. M. Blossom; original number 605. Beside the type there are 22 paratypes.

DIAGNOSIS.—Body size and skull characters like *Perognathus intermedius ater*, but color more brownish; less black on upperparts; sides grayer.

COLOR OF TYPE.—Upperparts including top of head Fuscous. The color of the upperparts shades into Light Mouse Gray on the sides and cheeks and involves the upper side of the hind legs above the ankles. Upper side of feet below the ankles and upper side of tail near the base, Benzo Brown. Toes paler. Distal half of tail shading to Cinnamon Drab all around. Underparts whitish.

MEASUREMENTS.—(In mm.)—Length, 165; tail, 93; hind foot, 21; ear from notch, 8.6. Skull.—Greatest length, 24.0; mastoid breadth, 12.6; interorbital constriction, 6.2; length of nasals, 9.6; parietals, 6.5 × 3.1.

GEOGRAPHICAL DISTRIBUTION.—Known only from the dark-colored lavas of the Pinacate Mountains in northwestern Sonora and from a narrow extension of the Pinacate lava which reaches into southwestern Arizona.

VARIABILITY.—Some specimens from the type locality differ from the type in being grayer on the sides, and in a few

specimens white hairs occur on the upperparts. The color of the sides extends in varying degree to the underparts. Among 25 specimens of *intermedius* taken on the Pinacate lava in southwestern Arizona, one specimen is pale buff in color and may be a migrant from the neighboring mountains where the mice of this species are light-colored. Specimens from the Pinacate lava in Arizona and from other stations on the Pinacate lava in Sonora are indistinguishable from the type series. A total of 64 specimens of *pinacate* have been examined. RELATIONSHIPS.—Although *pinacate* agrees most nearly in color with *ater*, the wide geographic isolation between the two forms indicates that the color of each has been independently developed.

