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ABERRANT PELAGE COLORATION IN *SIGMODON* FROM TEXAS

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Aberrant pelage coloration is not a commonly reported phenomenon in the hispid cotton rat, *Sigmodon hispidus*. Accounts in the literature on white *S. hispidus* in the wild are restricted to albino specimens. Gardner (1948) reported two albino juvenile males from Brooks County, Georgia, and Sherman (1951) reported an albino taken near Tampa, Florida. Dowler and Engstrom (1979) reported an adult female albino from Russell County, Kansas. Sherman (1951) also reported an unusually dark animal that was captured near Tampa.

In contrast, there are no published records of albinism among captive-reared *S. hispidus*. All reports of white *S. hispidus* from captive populations have been of nonalbino animals, generally with some tan in the pelage. Danforth and Schwentker (1949) reported on two white or predominantly white *S. hispidus* resulting from spontaneous mutations. Tan mutants also have been described from among captive animals (McWhirter et al., 1974).

On 16 April 1987, a predominantly white, subadult *S. hispidus* (Fig. 1) was captured in an old pile of boards located 6.5 km. S, 4.05 km. E College Station Post Office (about 20 meters SE off Graham Rd, 640 meters from intersection with FM 2154), 30°33′28″N, 96°16′40″E, 97 m., Brazos County. The specimen was deposited (no. 48863) in the Texas Cooperative Wildlife Collections (TCWC) of Texas A&M University. External measurements (mm) are: total length, 120; length of tail, 49; length of hind foot, 18; length of pinna, 12; weight 12 grams; testes, 3 × 5. We observed at least five other subadult animals of the same species in the board pile, and captured one. All were of the standard grizzled brown pelage type common in the College Station area.

Examination of *S. hispidus* in the TCWC revealed one additional specimen (TCWC 48864) with aberrant coloration (Fig. 1). This specimen, an adult female obtained on 10

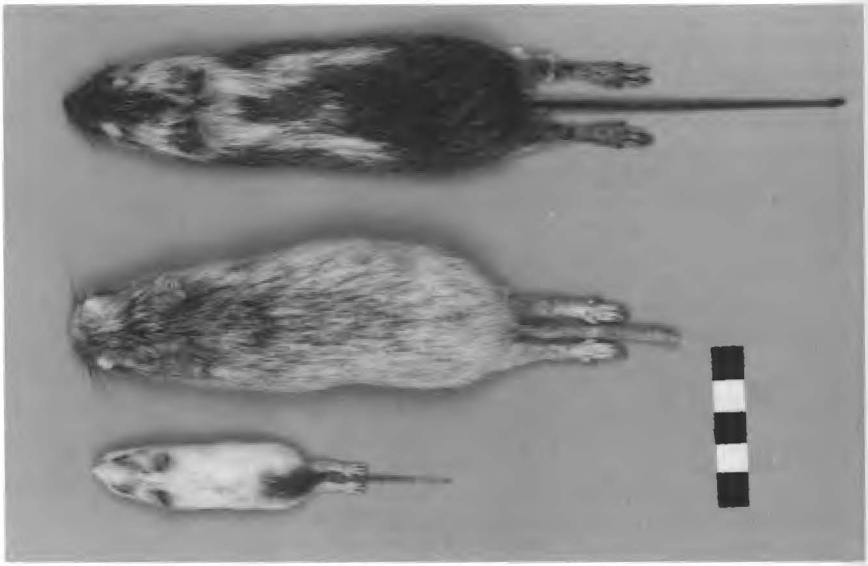

FIGURE 1. Abberant color phases of *Sigmodon*. Bottom to top: *S. hispidus* (TCWC 48863); *S. hispidus* (TCWC 48864); *S. ochrognathus* (TCWC 6197). Scale bar equals 50 mm.

November 1984 from 3.5 mi. W College Station, 350 ft., Brazos County, does not show white color to the extent as in the subadult specimen reported here (Fig. 1).

Our report of a nonalbino white *S. hispidus* is all the more unusual when one considers the scarcity of males among the reported color mutants of this species. Those described by Danforth and Schwentker (1949) both were females; sexes of the offspring were not stated. Based on presence of the mutation in two females, Danforth and Schwentker (1949) postulated that it was not sex-linked. From the resemblance of our specimen to specimens illustrated in Danforth and Schwentker, we suspect that the same type of mutation may be involved.

Among specimens of *Sigmodon ochrognathus* in the TCWC, one (TCWC 6197; Fig. 1) shows less extensive expression of a phenotype similar to that of our specimen of *S. hispidus*. This specimen is a female (with four fetuses) that was captured on 26 July 1956 at Grapevine Spring, Chisos Quad., 3000 ft., Brewster County. Measurements (mm) are as follows: total length, 250; tail length, 114; length of hind foot, 31; length of pinna 14; weight 88.5 grams. Findley and Jones (1960) reported various shades in different populations of *S. ochrognathus*, but all individuals were uniformly colored.

Average litter sizes in *S. hispidus* have been reported to range from 4.75 in Louisiana to 5.9 from Oklahoma (Svihla, 1929; Meyer and Meyer, 1944; Goertz, 1965; Kirkpatrick, 1965). The average litter size reported for white mutant specimens is 5.25 ($N = 8$, range one to eight—Danforth and Schwentker, 1949), which falls well within the reported range for the species. Dowler and Engstrom (1979) reported that although their albino specimen had an unusually larger litter, this phenomenon probably was correlated with latitude rather than any other factor. Average litter size in *S. ochrognathus* has been reported as 3.6 (range three to five—Baccus, 1971). The specimen of *S. ochrognathus* in the TCWC falls within this range, suggesting no negative correlation between litter size and pelage color.

The unusual coloration of the subadult *S. hispidus* did not appear to be associated with any chromosomal abnormality, as its karyotype was normal in all respects. The rarity of

nonalbino white *S. hispidus* in the wild warrants further investigation to clarify the phenomenon, in particular given that both aberrantly colored *Sigmodon hispidus* were collected in the same vicinity.

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CRANIAL ASYMMETRY IN A POCKET MOUSE, *CHAETODIPUS FALLAX* (RODENTIA: HETEROMYIDAE)

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Examination of a series of mammal specimens obtained through exchange from the Los Angeles County Museum of Natural History revealed the skull of an adult male San Diego pocket mouse, *Chaetodipus fallax*, to be markedly asymmetrical (Fig. 1). Reports of such abnormalities in the literature are rare, and no instance of cranial asymmetry among heteromyid rodents previously has been described. The atypical skull is herein characterized, and possible causative factors for this condition are presented.

The cranial abnormality of the skull is most evident in dorsal view (Fig. 1A). The rostrum deviates laterally from the midline to the right at an angle of about 33 degrees. The braincase and skull roof appear normal. The rooted, brachyodont cheekteeth are noticeably more heavily worn on the right side. The upper right incisor is shorter by 2mm than its counterpart on the left, and a lateral view (Fig. 1B) reveals that the terminal tip is blunted and unworn.

Asymmetry in the skull appears most likely to have resulted from cessation of growth of the upper right incisor, with repeated compensatory shifting of the lower jaw to permit the occlusion of both lower incisors with the single upper incisor, thus keeping them worn and beveled to a sharp edge. Apparently, the single normal upper incisor was able to serve this purpose in life. Articulation of the cleaned skull and mandible demonstrated the ease with