Chaetodipus nelsoni (Merriam, 1894)

Nelson's Pocket Mouse

Perognathus (Chaetodipus) nelsoni Merriam, 1894:266. Type locality “Hacienda La Farada [25 miles northwest of the city of San Luis Potosí—Elliot, 1905:313]. San Luis Potosí, Mexico.”

Perognathus collis Blair, 1938:1. Type locality “Limpia Canyon, about one mile northwest of Fort Davis, Davis Mountains, Jeff Davis County, Texas, altitude 4800 feet.”


CONTEXT AND CONTENT. Order Rodentia, Suborder Sciurognathi, Superfamily Geomyoidea, Family Heteromyidae, Subfamily Perognathinae, Genus Chaetodipus, Subgenus Chaetodipus (Williams et al., 1993). A key to the 14 species and two subgenera of Chaetodipus is presented by Williams et al. (1993) and Best (1993a). Two subspecies of C. nelsoni are recognized (Hall, 1981):

C. n. canescens (Merriam, 1894:267). Type locality “Jaral, Coahuila, Mexico” (collis Blair and popei Blair are synonyms).

C. n. nelsoni (Merriam, 1894:266), see above.

DIAGNOSIS. Chaetodipus nelsoni (Fig. 1) is sympatric with C. hispidus, C. intermedius, C. lineatus, and C. penicillatus (Hall, 1981). External features that help distinguish C. nelsoni from sympatric and parapatric species of Chaetodipus are: numerous and prominent spines on the rump; distal ends of the rump spines usually are darkly colored dorsally; entire rump spine is pale-colored laterally; no thin and elongate rump hairs; soles of the hind feet are blackish (Wilkins and Schmidt, 1979).

Compared with C. hispidus, C. nelsoni is a much smaller pocket mouse with a relatively long, crested tail, and with spines on the rump (Williams et al., 1993). Compared with C. lineatus, C. nelsoni is distinguished by its dark-brownish color, rather than dull gray, and the presence of spines in the pelage of the rump (Dalquest, 1951; Williams et al., 1993). Compared with C. artus, C. nelsoni has greater nasal projection, exoccipital width, posterior zygomatic width, interparietal length, and inter orbital width. Compared with C. goldmani, C. nelsoni has greater nasal projection, greater interparietal width, greater interorbital width, shorter ears (Anderson, 1972), and relatively larger mastoid bullae (Williams et al., 1993).

Average measurements (in mm) of males and females, respectively, of C. nelsoni, C. intermedius, and C. penicillatus, respectively, from Trans-Pecos Texas are: total length, 180, 181, 168, 165, 170, 169; length of tail, 102, 102, 93, 93, 92, 93; length of hind foot, 21, 21, 21, 22, 22; length of ear, 8, 8, 7, 7, 7, 7; greatest length of cranium, 25.3, 25.2, 24.3, 24.0, 25.2, 25.0; mastoid breadth, 13.3, 13.2, 13.0, 12.8, 12.7, 12.7; occipitobullar length, 7.7, 7.7, 7.6, 7.5, 7.4; occipitomaxillary length, 14.4, 14.4, 14.2, 14.4, 14.3, 14.2; rostral length, 10.7, 10.7, 10.7, 10.3, 10.2, 10.6, 10.4; nasal length, 9.1, 9.0, 8.7, 8.6, 9.7, 9.6; inter orbital constriction, 6.2, 6.2, 6.1, 6.0, 6.2, 6.1; width of interparietal, 7.3, 7.3, 7.3, 6.5, 6.5; length of interparietal, 3.9, 4.0, 3.1, 3.1, 3.2, 3.1; depth of cranium, 3.8, 3.8, 3.1, 3.0, 3.1, 3.1; length of maxillary toothrow, 3.4, 3.3, 3.4, 3.4, 3.4, 3.4; width of maxillary toothrow, 4.2, 4.2, 4.2, 4.1, 4.1, 4.1 (Wilkins and Schmidt, 1979).

Compared with C. intermedius, C. nelsoni has more conspicuous rump spines, coarser pelage, larger size, shorter toothrow (Anderson, 1972), wider rostrum (Williams et al., 1993), greater posterior zygomatic width, interparietal length (Anderson, 1972), length of cranium, occipitomaxillary length, rostral length, nasal length, and length of interparietal. The difference in average length of interparietal is due to the pentagonal shape of the interparietal in C. nelsoni (Fig. 2) and the roughly ellipsoidal shape of this bone in C. intermedius. External features that also serve to distinguish C. intermedius from C. nelsoni are few spines on the rump, entire rump spines usually are pale-colored dorsally and laterally, numerous thin and elongate rump hairs that are about the same length as the rump spines, and soles of the hind feet are whitish (Wilkins and Schmidt, 1979).

Chaetodipus nelsoni may be confused with C. penicillatus, which is similar in size and proportions and with which C. nelsoni is broadly sympatric. Compared with C. penicillatus, C. nelsoni has rump spines, greater nasal projection, exoccipital width, interparietal length, and interparietal width, and lesser anterior zygomatic width and premaxillonasal length (Anderson, 1972). C. nelsoni is significantly larger than C. penicillatus in total length, length of tail, length of ear, mastoid breadth, occipitobullar length, occipitomaxillary length, rostral length, width of interparietal, length of interparietal, depth of cranium, and width of maxillary toothrow. The greater dimensions of the interparietal in C. nelsoni reflect a frequently more pronounced forward displacement of the anterior border of the interparietal (Wilkins and Schmidt, 1979). The characteristic rump spines of C. nelsoni may not be evident in young or molting animals (Findley, 1987). However, young C. nelsoni that lack rump spines may be distinguished from young or adult C. penicillatus by the presence of white subauricular spots and dusky plantar surfaces of the hind feet (Porter, 1962).

GENERAL CHARACTERS. Chaetodipus nelsoni is a medium-sized pocket mouse with coarse pelage, numerous black-tipped spines on the rump (Davis, 1974), and external fur-lined cheekpouches (Dalquest, 1953). The ears are small and oval, the body is elongate and slim, the forefeet are small, and the hind feet are large. The pelage is long on the mid dorsal region, and the rump has numerous long and grooved spines. The spines of the rump are best seen by pressing down the skin of the rump, causing the hairs and spines to rise (Dalquest, 1953). The tail is longer than the head and body, sparsely haired on the basal one-half, the terminal one-half is crested, penicillate, indistinctly bicolor, and darker above than below. The soles of the hind feet are blackish (Davis, 1974). Dorsally and laterally, the pelage is brown. The hairs there are dark plumbeous basally, with a narrow grayish-fawn zone and a dark black tip. The orbital region is slightly paler than the dorsum and sides. The lateral line is fawn in color and well defined. The underparts are whitish, and the ears are dusky and slightly hoary on the margins (Osgood, 1900).

Fig. 1. A Chaetodipus n. canescens on the east slope of King Mountain, near McCallum, Upton Co., Texas.
Average measurements (in mm) of adult males and females, respectively, from throughout the range of Nelson’s pocket mouse are: total length, 179.2, 176.4; length of body, 80.7, 78.4; length of tail, 98.6, 98.1; length of hind foot, 21.2, 21.0; length of ear, 8.0, 7.8; basal length of cranium, 15.9, 15.7; greatest length of cranium, 25.5, 25.2; spread of maxillary arch, 11.8, 11.5; interorbital width, 6.4, 6.4; nasal length, 10.0, 9.7; internasal maxillary width, 4.6, 4.6; alveolar length, 3.7, 3.7; lacrimal length, 1.7, 1.8; width of maxillary arch, 1.3, 1.4; basioctepital length, 3.6, 3.9; greatest depth of cranium, 8.3, 8.5; greatest width of cranium, 13.5, 13.2; zygomatic width, 13.1, 12.8; nasal width, 2.8, 2.7 (Best, 1993b). In Tamamula, average mass (in g) for males and females, respectively, in southern localities is 14.7 (range, 12.0–16.5) and 13.8 (range, 12.0–15.5), and in northern localities average mass is 18.5 (17.0–20.0) and 17.0 (range 15.0–18.0) (Alvarez, 1963). In Texas, average mass of adult males (16.1 g) is significantly larger than that of non-pregnant adult females (14.4 g), but there is no significant difference in length of body (males 82.5 mm, females 81.9 mm—Porter, 1962). Males are significantly larger than females in spread of maxillary arch and greatest width of cranium (Best, 1993b).

Compared with C. n. nelsoni, C. n. canescens has more slender nasals, constricted interorbital space, and slightly smaller mastoids (Osgood, 1909). In Coahuila, C. n. canescens is paler and has a smaller rostrum and larger mastoids than C. n. nelsoni (Baker, 1956). In northeastern Durango, C. n. canescens is pale colored, and has slender nasal bones and small mastoids. In central and southern Durango, C. n. nelsoni is darker, and has a broad rostrum and large mastoids (Baker and Greer, 1962).

**DISTRIBUTION.** Nelson’s pocket mouse occurs in southeastern New Mexico, western Texas, and northcentral Mexico (Fig. 3; Hall, 1981). Within this range, C. nelsoni occupies upper and lower Sonoran life zones (Osgood, 1900) at 365–2,025 m elev. (Baker, 1956). In Texas, the maximum elevation occupied seems to coincide with the ecotone between the desert-shrub vegetation and the pinyon-juniper (Pinus-Quercus-Juniperus) woodlands (Porter, 1962). In Durango, the canyon of the Rio Nazas does not seem to be a barrier to C. nelsoni, as it is for some other species of small mammals (Baker and Greer, 1962; Petersen, 1976).

**FOSSIL RECORD.** The fossil history of Perognathusineae begins in the Miocene (Kurtén and Anderson, 1980; Wood, 1935). Remains that may be those of C. nelsoni have been found in late Pleistocene deposits from Cueva Querobra, Val Verde Co., Texas (Lundelius, 1984), and remains of Recent age have been found in a cave in central Coahuila (Gilmore, 1947).

**FORM AND FUNCTION.** Compared with other Chaetodipus, the hair of C. nelsoni is shortest in length (average, 6.5 mm; range, 6.3–6.7) and medium in width (0.07–0.09 mm). The base of hairss flares rapidly, the shaft is straight, the tip is abrupt, and in cross section the trough is shallow and wide. The medulla has five or six oval to flattened cells across, the rows are irregular, and there is some fusion of cells (Homan and Genoways, 1978).

Rump spines are absent in young C. nelsoni and at times during the molt. Summer pelage is coarse and upperparts are grizzled yellowish-brown from admixture of coarse buffy and black hairs; winter pelage is finer and grayish black (Merriam, 1894). Worn pelage is paler than un worn pelage (Osgood, 1900). In Texas, pelage is palest in April and becomes progressively darker until September (Borell and Bryant, 1942).

The one annual molt (May–October) is 1 month for most adults. Molt progresses from the nose posteriorly and terminates at the ankle. The venter usually lacks an evident molt line and the rate of molt appears to be slower there than on the dorsum. Consequently, by the time the dorsal molt line reaches the rump, the ventral molt still is confined to the belly region. As a result, the final...
stages of molt are characterized by a molt line extending from the rump laterally and anteriorly across the thighs and sides. The molt then progresses posteriorly on the belly and down the hind legs. The last stage of molt is indicated by the presence of molt lines near the ankles (Porter, 1962). In Jalisco on 18 July, one adult was molting on the posterior part of the back and on the flanks (Genoways and Jones, 1973). In Texas, several had distinct molt lines, and some appeared to lack guard hairs (Tamsitt, 1954).

In Durango, C. n. nelsoni from the dark, volcanic soils of the Guadiana lava field have distinct blackish upperparts and buffy underparts, whereas those on adjacent pale soils are less dark. Specimens from the middle of the lava field are darker than those at the periphery (Baker, 1960; Baker and Greer, 1962). In Texas, there is no significant difference in coloration of Nelson's pocket mouse between limestone and lava habitats (Tamsitt, 1954).

The dental formula of Nelson's pocket mouse is 1/1, c 0/0, p 1/1, m 2/2, total 20 (Nowak, 1991). The skull (Fig. 2) is moderately narrow across the anterior portion of the braincase (Borel and Bryant, 1942). The hind foot is 30% of the length of head and body, the tail is 133% of the length of head and body, and the tail has a penicillate tip (Hatt, 1932). The sebaceous caudal glands are small, unmodified, and larger in males than females (Quay, 1965). The baculum is elongate and slender; it tapers gradually from the bulbous base to the angled tip, and it is typical of Chaetodipus. Measurements of two bacula from Texas are: length, 12.0, 12.3; height of base, 0.8, 0.9 (Burt, 1960).

**ONTOGONY AND REPRODUCTION.** The length of the breeding season is 5–7 months (March–July—Baker, 1956; Conley et al., 1977). In Texas, the breeding season begins in February and the peak of pregnancy is reached in March (Davis, 1974). In Coahuila, pregnant females were present 29 March, 18 April, 28 April, 27 June, 7 July, and 21 July. Non-pregnant females were present in January–April, July, November, and December (Baker, 1956). In Durango on 26 June, one C. nelsoni had two embryos and one on 16 August had three embryos, but 32 females examined 10 June to 30 July showed no evidence of breeding (Baker and Greer, 1962). In San Luis Potosí, few pregnant females have been found before July. Litters are born in August, and in August and early September most females are lactating (Dalquest, 1953).

Average litter size is about three (range, one to five—Baker, 1956; Conley et al., 1977; Davis, 1974; Jones, 1985; Matson and Baker, 1986; Porter, 1962), and the gestation period is ca. 30 days (Davis, 1974; Jones, 1985). In Texas, subspecies are present March–July (Davis, 1974), and in Coahuila, young appear in spring and summer (Baker, 1956). In Zacatecas, females are lactating from 13 July to 18 August (Matson and Baker, 1986).

Young grow rapidly, and by late August and September Nelson's pocket mouse is among the most common desert mammals (Dalquest, 1953). Subadults in molt are intermediate in size between subadults not in molt and adults. Subadults apparently complete the postjuvenile molt before they have acquired their mature mass and length of body. For most subsadults, duration of molt is ≤1 month, but one subsadult examined in late May had not completed this molt by 9 July. Most subsadults complete the postjuvenile molt by September (Porter, 1962).

Chaetodipus nelsoni molts into adult pelage and probably is capable of reproducing before it acquires adult mass. Average mass of adults with spermatocysts is significantly greater during July and August than that of subsadults with spermatocysts captured during the same period. For one sample of subsadult females in the Big Bend region of Texas, 10% were pregnant and 5% had placental scars (Porter, 1962). In the Big Bend region, a greater percentage of subsadults (25%) than adults (12%) survive from one July to the next (Porter, 1962). Two C. nelsoni that were first captured as subsadults were alive in the wild for ≥30 months, another for 24 months, and two others for ca. 20 months (Davis, 1974; Porter, 1962).

**ECOLOGY.** In Texas, Nelson's pocket mouse occurs on steep rocky slopes (Fig. 4), on sandy flats, around old stone buildings, and in piles of rocks (Bailey, 1905; Blair, 1940; Blair and Miller, 1949; Davis, 1974; Denyes, 1956; Hollander et al., 1987; Tamsitt, 1954). Because of its ecological association with mountains in Texas, C. nelsoni exists in numerous semi-isolated populations; desert basins are at least partial barriers to the interchange of individuals among populations (Blair, 1950). In the Big Bend region, Nelson's pocket mouse occurs in the riparian corridor (Boeer and Schmily, 1977), but is most common on rocky slopes (30–40% slope). The soil, which often is shallow, contains 80–90% rocks. In this habitat, there are >500–14,500 rocks >40 cm in diameter. Size of rocks probably is of greater importance in determining the abundance and distribution of C. nelsoni than slope or density of vegetation (Porter, 1962). C. nelsoni occurs in habitats having prickly pear (Opuntia engelmanni and O. macrocentra—Dixon, 1959), pennsylvanian-sim-ooak (Diospyros—Quercus—Herrmann, 1950), creosotebush (Larrea tridentata), ocoillo (Fouquieria splendens), honey mesquite (Prosopis glandulosa), sotol (Dasylirion leiospermum), lechugilla (Agave lechugilla), cateclaw (Acacia berlandieri, A. greggii), purple thorn (Aristida purpurea), grassa grass (Bouteloua brevifolia, B. curtisana, B. gracilis, B. hirsuta), doveweed (Croton neo-americanus), prairie clover (Dalea wrightii), hedgehog cactus (Echinocereus enneacanthus, E. stramineus), ephedra (Ephedra antisyphilitica, E. trifurcata), lovegrass (Eragrostis intermedia), candelilla (Euphorbia antisyphilitica), Hectia scariosa, huitlacoche (Helotium pytopremoides), pachycarpus (Hippeastrum calceolus), ojo de agua (Echinocereus dasyacanthus), lechugilla (Agave lechugilla), and others.
surface is covered by vegetation. The understorey plants usually are 30–50 cm in height (Porter, 1962). Nelson’s pocket mouse usually occupies rocky soils on slopes (Baker, 1956; Baker and Greer, 1962; Dalquest, 1953; Hooper, 1955), but it may occur on sandy or other fine soils (Baker, 1956). An important habitat of *C. nelsoni* seems to be stone walls (Baker, 1960; Dalquest, 1953; Genoways and Jones, 1973), which were constructed in colonial days and extend over the desert for great distances (Dalquest, 1953). *C. nelsoni* lives in bajada habitats of the Chihuahuan Desert that are characterized by *Opuntia ras- trata*, *Laurea*, *Castella*, *Cordia*, *Krameria* (Rogovin et al., 1991), *Agave aspergillum*, *Euphorbia antisyphilitica*, and *Jatropha* (*Gren- not and Serrano, 1986*, 1982; Serrano, 1987). In Aguascalientes, *C. nelsoni* occurs on cactus and mesquite-studied rocky hills (Hoop- er, 1955). In Coahuila, Nelson’s pocket mouse occurs on slopes where cactus, creosotebush, sotol, and lechuguilla provide scattered cover (Baker, 1956). In Durango, *C. nelsoni* is present in grasslands, rocks, mixed grass and shrub, and desert shrub (Baker and Greer, 1962), as well as in grasslands with scattered cacti, junipers, and mesquites on the east-facing foothills of the Sierra Madre Occiden- tal (Baker, 1966). In the Guadiana lava field, Nelson’s pocket mouse occurs in open grass, on bare areas, and near clumps of brush and cacti (Baker, 1960). In Jalisco, *C. nelsoni* occurs under deciduous growth of deciduous bushes and cacti bordering a dry stream bed, and around cornfields, stone fences, and where mesquite grew along riverbanks (Genoways and Jones, 1973). In San Luis Potosí, Nelson’s pocket mouse occurs in desert areas, and is most abundant in brush and near rocks (Dalquest, 1953). In Tamaulipas, *C. nelsoni* occupies semi-desert areas where the dominant vegetation is cactus, weedy bushes (Alvarez, 1963). In Zacatecas, *C. nelsoni* is absent only from montane forests in the western part of the state (Matson and Baker, 1986).

In Jalisco, and other parts of Mexico, Nelson’s pocket mouse occupies habitats that have been disturbed by agricultural practices (Genoways and Jones, 1973). In Durango, *C. nelsoni* may have become more abundant or even extended its range in the grassland habitat as a result of severe grazing by livestock (Baker, 1960; Baker and Greer, 1962). In Zacatecas, *C. nelsoni* occurs where much of the land is under cultivation, but there may be clumps of grass and nopal cactus (*Opuntia*) in ravines that serve as suitable habitat (Genoways and Jones, 1971).

Throughout its range, Nelson’s pocket mouse is one of the commonest pocket mice (Baker, 1960; Baker and Greer, 1962; Hall, 1981; Matson and Baker, 1986; Osgood, 1905; Tamsitt, 1954). In Texas, the annual turnover is ca. 75–86% (Porter, 1962), and there is much fluctuation of population size (Tamsitt, 1954). In Mexico, densities often are 1–8/ha (Rogovin et al., 1991), but may reach 60–90/ha in late spring-early summer when ca. 65% of the population is young-of-the-year (Serrano, 1987).

In Mexico, size of home range is 0.14–0.45 ha (range, 0.04–0.86 ha—Grenot and Serrano, 1982). In Texas, home ranges of males (0.31 ha) are larger than those of females (0.26 ha—Porter, 1962), and there is a tendency for home ranges of males to overlap (Dixon, 1959). Home ranges of adult males are complementary during periods when population density is low (July and September) with the exception of March. The overlapping in March probably is attributable to the greater movement of adult males as a result of increased breeding activities during that period. During December and May, when population densities are high, home ranges of adult males overlap to a greater extent than when populations are low. Home ranges of adult females are exclusive of each other during March and September, and slightly overlap during July, December, and May (Porter, 1962).

In Texas, one burrow of *C. nelsoni* opened in the cut-bank face of an arroyo. There were several openings adjacent to the burrow that were 3–4 cm in diameter. The burrow extended straight back into the wall of the cut-bank 30 cm at this point. Four tunnels converged, three of which opened in the face of the arroyo. The main tunnel opened to the right at the point of convergence and then slightly downward continuing on for 30 cm before terminating in a large chamber 7 cm high and 13 cm wide. One tunnel extended upward to the surface opening ca. 15 cm from the edge of the arroyo. The nest primarily consisted of shredded grasses, was 14 cm long and 24 cm wide, and was 5 cm from the point of conver- gence along this tunnel. No feces, parasites, or food caches were present in the burrow system (Judd, 1967).

Nelson’s pocket mouse is a granivore (Grenot and Serrano, 1982; Packard, 1977), but it also may eat insects and other parts of plants (Grenot and Serrano, 1982). Cheekpouches often contain 20–25 seeds, sometimes more (e.g., 35 and 40 seeds, the size of peas). Some leaves and green vegetation also are found in cheekpouches (Dalquest, 1953). In Texas, cheekpouch contents included seeds of honey mesquite, creosotebush, prickly pear, spurge (Euphorbia), and buckwheat (Eriogonum—Judd, 1967).

*C. nelsoni* is a diurnal species, but it may be active at times near dusk (Porter, 1962). In winter, *C. nelsoni* is a diurnal species, but it may be active at times near dusk (Porter, 1962).

**BEHAVIOR.** Nelson’s pocket mouse is nocturnal and does not emerge from its burrow before dusk. It usually travels on all four feet, it runs rather than hops, and its movements are slow, except when frightened. The small burrows of *C. nelsoni* are dug between rocks, preferably those that completely cover them. The burrow opening is 2 cm wide, and the entrance is 10 cm deep. The burrow is 1 m from the point of emergence along this tunnel. No feces, parasites, or food caches were present in the burrow system (Judd, 1967).

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**PEROGNATHUS MEXICIENSIS** (Davis, 1974). However, Nelson's pocket mouse may be more (Porter, 1962) or less active in winter and
early spring months than during the remainder of the year. Apparently, the social system of adults has an important bearing on the pattern of dispersal of immatures (Dixon, 1959).

**GENETICS.** Nelson's pocket mouse has two cytotypes (2n = 46 and 48); each cytotype has a fundamental number of 58 autosomal arms, and both occur within the range of *C. n. caniceps*. The difference between the cytotypes probably is due to a Robertsonian fusion (Pattom, 1970). The 2n = 48 cytotype probably is isolated in the Trans-Pecos region of Texas, north of the Rio Grande and west of the Pecos River. Specimens from near Langtry, Val Verde Co., and Marathon, Brewster Co., west of the Pecos River had 2n = 48, whereas a specimen from Comstock, Val Verde Co., east of the Pecos River, had 2n = 46. The distance between Langtry (2n = 48) and Comstock (2n = 46) is ca. 50 km (Lee, 1990). The 2n = 46 cytotype also is present in southern Coahuila (Pattom, 1970). There may be a narrow contact zone between cytotypes in Val Verde Co., Texas, and northern Coahuila (Lee, 1990). The seven largest pairs of autosomes are biarmed with centromere position varying from metacentric to subtelocentric; the rest are acrocentric. The X chromosome is medium-sized and metacentric, and the Y chromosome is small and acrocentric (Lee et al., 1991).

For 28 genic loci examined, the average number of alleles/locus was 1.250, the average number of loci polymorphic/population was 0.143, and the average number of loci that were heterozygous in an individual was 0.022 (range, 0.018-0.026). The subspecies of *C. nelsoni* have a similarity value of 0.869; for most other species of *Chaetodus* the similarity values between subspecies are >0.9 (Pattom et al., 1981).

**REMARKS.** The relationship between *C. nelsoni* and *C. lineatus* appears to be close. *C. lineatus* may not be a valid species, but rather a name applied to variant specimens of *C. nelsoni*. Aside from *C. lineatus*, *C. nelsoni* appears to be most closely related to *C. artius*, *C. goldmani*, and *C. intermedius*, the former two having allopatric geographic ranges to *C. nelsoni* (Williams et al., 1993). No hybrids are known between *C. nelsoni* and *C. goldmani* or between *C. nelsoni* and *C. intermedius* (Hall and Ogilvie, 1960).

One phenetic analysis of *Chaetodus* placed *C. nelsoni* closest to *C. fallax*, but in the same larger cluster as *C. arenarius*, *C. intermedius*, and *C. penicillatus* (Cair, 1976). In another phenetic analyses of morphologic characters, *C. nelsoni* was most similar to *C. intermedius*, *C. lineatus*, and *C. penicillatus* (Best, 1993).

*Chaetodus is* from the Greek *chaeta* referring to bristle-like hairs, *di* meaning two, and *panda* alluding to feet. The specific epithet *nelsoni* is in honor of E. W. Nelson (1855-1954 - Jaeger, 1955). Additional common names are gray (Osgood, 1900), gray brush-tailed (Bailey, 1905), Jallal (Elliott, 1905), and upland pocket mouse (Blair, 1940).

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