KEY TO THE RODENTS OF TEXAS
The Mammals of Texas - Online Edition
ORDER RODENTIA

Key to the Families

1. Presence of external, fur-lined cheek pouches: ......................... 2
   Absence of external, fur-lined cheek pouches: ......................... 3

2. Front feet much larger than hind feet; ear (pinna) short and
   inconspicuous; tail about half the length of head and body
   (GEOMYIDAE pocket gophers): .................................. 2
   Front feet much smaller than hind feet; ear (pinna) conspicuous; tail
   as long as (or longer than) head and body (pocket mice and kangaroo
   rats): ................................................................. 4

3. Tail paddle-shaped, naked, scaly; hind feet webbed; size large: Castor
   canadensis (American beaver). ...................................... 2
   Tail not paddle-shaped: ............................................. 4

4. Pelage with intermixed sharp quills; large, 4 to 12 kg: Erethizon
dorsatum (porcupine). ............................................... 10
   Pelage without quills: ................................................ 5

5. Lower jaw with four cheek teeth on each side: ....................... 6
   Lower jaw with only three cheek teeth on each side: ............ 7

6. Hind feet fully webbed; hystricomorphous; adults weigh up to 12 kg;
tail long, naked, and nearly circular in cross section: Myocastor
coypus (nutria). ......................................................... 6
   Hind feet not fully webbed, sciuromorphous: .......................... 11

7. Enamel pattern of molar teeth with transverse or oblique folds or
   triangles: ................................................................. 13
   Enamel pattern of molar teeth with two or three rows of cusps
   (unworn condition) or roughly circular with slight lateral indentations
   (worn condition): .................................................. 8

8. Enamel pattern of molar teeth with two cusps (unworn condition):
   ................................................................. 13
   Enamel pattern of molar teeth with three rows of cusps (unworn
   condition): .......................................................... 8


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   pocket mice and kangaroo rats): .................................. 5

3. Upper incisors not grooved on outer face; claws of front feet
   relatively small and sciuromorphous: .................................. 10
   Upper incisors distinctly grooved on outer surface; claws of front
   feet large and long (longest ones about 15 mm): .................. 4

4. Upper incisors with one deep groove; feet blackish: ................. 4
   Cratogeomys castanops (yellow-faced pocket gopher).
   Upper incisor with two distinct grooves; feet whitish.
   Seven species of Geomys occur in Texas. The species is South
   Texas is ................ Geomys personatus (Texas pocket gopher)

5. Hind legs more than twice as long as front legs; tail long and
   bushy at end; head broad, 25 mm or more in width (kangaroo
   rats): ..................................................................... 6
   Hind legs less than twice as long as front legs; head about 15
   mm in width (pocket mice): ........................................ 7

6. Hind foot with five toes (one is very small and difficult to detect):
   ............................................................... Dipodomys compactus (Gulf Coast kangaroo rat)
   Hind foot with only four toes: ........................................... 7
   ............................................................... Dipodomys merriami (Merriam’s kangaroo rat)

7. Size small, total length 100-130 mm; weight 6 to 8 grams; pelage
   silky and soft postauricular patch conspicuous. Silky pocket
   mice: .................................................................. 8
   Perognathus merriami (Merriam’s pocket mouse)
   Size larger, pelage harsh, often bristly, never silky’: ................ 8

8. Upper incisors plain, not grooved, on outer face; pelage spiny to
   touch, upperparts dark gray, grizzled with orange; underparts
   pure white: ................ Liomys irroratus (Mexican spiny pocket mouse).
   Upper incisors distinctly grooved on outer face. upperparts olive
   buffy, lined with black; lateral line wide and clear buff; underparts

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18. Spots in 10 or more distinct rows; tail narrowly bushy and about three times as long as hind foot: 
   \[ \ldots \] \textit{Spermophilus tridecemlineatus} (thirteen-lined ground squirrel).

19. General color yellowish brown; tail very short (1.5 times length of hind foot) and black-tipped:
   \[ \ldots \] \textit{Cynomys ludovicianus} (black-tailed prairie dog).
   General color gray, brown, or blackish; tail long and bushy: \[ \ldots \] \textit{Spermophilus variegatus} (rock squirrel).

20. Belly reddish or rusty in color; upperparts grayish; hind foot 70 mm or more: \[ \ldots \] \textit{Sciurus niger} (eastern fox squirrel).
   Belly whitish or grayish; not reddish; hind foot 70 mm or less: \[ \ldots \] \textit{Sciurus carolinensis} (eastern gray squirrel).

21. Belly white; upperparts gray, unspotted:
   \[ \ldots \] \textit{Sciurus carolinensis} (eastern gray squirrel).

22. Tail flattened laterally, sparsely haired and scaly; hind toes fringed with stiff hairs; length of adults about 45 cm:
   \[ \ldots \] \textit{Ondatra zibethicus} (common muskrat).

23. Enamel pattern of molar teeth with transverse or oblique folds or triangles: \[ \ldots \] \textit{Oryzomys palustris} (marsh rice rat).

24. Ears conspicuous; tail in adults usually >150 mm; eyes large, black, and bulging in life; fur rather soft; whiskers long, usually > 50 mm (\textit{Micoureus}): \[ \ldots \] \textit{Sigmodon hispidus} (hispid cotton rat).

25. Rat size, total length 230 mm or more: \[ \ldots \] \textit{Oryzomys palustris} (marsh rice rat).

26. Cusps on upper molars in two rows; hind foot narrow and slender (rice rats): \[ \ldots \] \textit{Oryzomys couesi} (Coues' rice rat).

27. Coat grayish brown... \[ \ldots \] \textit{Oryzomys palustris} (marsh rice rat).
28. Tail slender and as long as or longer than head and body (tail reaches to or beyond nose when laid forward); color brownish or black; weight to 225 g: .............................. *Rattus rattus* (roof rat).
   Tail chunkier and shorter than head and body; color brownish; weight to 450 g: .............................. *Rattus norvegicus* (Norway rat).

29. Outer face of each upper incisor with deep groove. Tail much longer than head and body (projects beyond nose when laid forward along back); last lower molar with dentine in the form of an "S:" .............................. *Reithrodontomys fulvescens* (fulvous harvest mouse)
   Outer face of upper incisors not grooved. .............................. 30

30. Upper incisors with distinct notch at tip when viewed from the side; distinctly musky odor.............. *Mus musculus* (house mouse).
   Upper incisors lacking distinct notch at tip: .............................. 31

31. Total length of adults 100 mm or less; tail short, 35 mm, about three times length of hind foot; color blackish or sooty:..............................
   Total length of adults 125 mm or more; color not blackish or sooty: 32

32. Tail less than half length of head and body; crown length of maxillary toothrow 4.0 mm or more
   .............................. *Onychomys leucogaster* (northern grasshopper mouse).
   Tail more than 60% of head and body; coronoid process of mandible does not ascend above tip of condyloid process; soles of feet only slightly furred (deer mice and relatives): .............................. 33

33. Tail with narrow and distinct dorsal stripe; total length of adults usually less than 170 mm; length of tail usually less than 75 mm; greatest length of skull usually less than 26 mm:
   .............................. *Peromyscus maniculatus* (deer mouse).
   Tail with broad dorsal stripe and not sharply bicolored; total length of adults usually more than 170 mm; length of tail usually more than 75 mm; greatest length of skull usually more than 26 mm: ..............................
   .............................. *Peromyscus leucopus* (white-footed mouse).

34. Tarsal joints of ankles white like upper side of hind foot; baculum with long cartilaginous spine at its terminal end:
   .............................. *Peromyscus pectoralis* (white-ankled mouse).
   Dusky color of hind leg extending to end more or less over tarsal joint, baculum with a short cartilaginous spine at its terminal end: .............................. 58