

FIELD GUIDE TO NORTH AMERICAN MAMMALS

Northern Short-tailed Shrew

(Blarina brevicauda)

ORDER: Insectivora

FAMILY: Soricidae

Northern Short-tailed Shrews have poisonous saliva. This enables them to kill mice and larger prey and paralyze invertebrates such as snails and store them alive for later eating. The shrews have very limited vision, and rely on a kind of echolocation, a series of ultrasonic "clicks," to make their way around the tunnels and burrows they dig. They nest underground, lining their nests with vegetation and sometimes with fur. They do not hibernate. Their day is organized around highly active periods lasting about 4.5 minutes, followed by rest periods that last, on average, 24 minutes. Population densities can fluctuate greatly from year to year and even crash, requiring several years to recover. Winter mortality can be as high as 90 percent in some areas. Fossils of this species are known from the Pliocene, and fossils representing other, extinct species of the genus Blarina are even older.



Blarina sp. - summer coat

Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)



Also known as:

Short-tailed Shrew, Mole Shrew

Sexual Dimorphism:

Males may be slightly larger than females.

Length:

Range: 118-139 mm

Weight:

Range: 18-30 g

FIELD NOTES

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FIELD GUIDE TO NORTH AMERICAN MAMMALS

**Least Shrew**  
*(Cryptotis parva)*

ORDER: Insectivora  
FAMILY: Soricidae

Least Shrews have a repertoire of tiny calls, audible to human ears up to a distance of only 20 inches or so. Nests are of leaves or grasses in some hidden place, such as on the ground under a cabbage palm leaf or in brush. Weighing in at only a few grams, this shrew is remarkably adaptable, as its extensive north to south distribution attests. From southern New England to northern Panama, the Least Shrew inhabits grassy fields, marshes, and woodland habitats.



*Cryptotis parva* – summer

Credit: painting by Nancy Halliday from Kays and Wilson's *Mammals of North America*, © Princeton University Press (2002)

**Also known as:**

Small Short-tailed Shrew, Little Short-tailed Shrew, Bee Shrew

**Sexual Dimorphism:**

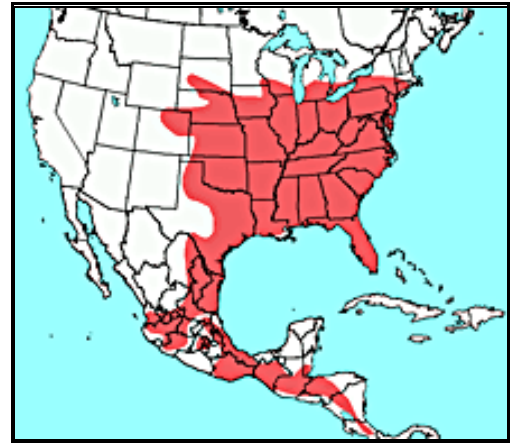
None

**Length:**

Average: 75 mm  
Range: 61–89 mm

**Weight:**

Range: 3–10 g



**FIELD NOTES**

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

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**Cockrum's Gray Shrew**  
*(Notiosorex cockrumi)*

ORDER: Insectivora  
FAMILY: Soricidae

With developments in molecular biology, biologists have powerful new tools to determine the relatedness of specimens found at different locations. Studies of chromosomes and gene sequences have helped identify Cockrum's Gray Shrew and several other species as being distinct from *Notiosorex crawfordi*, even where their ranges appear to overlap.

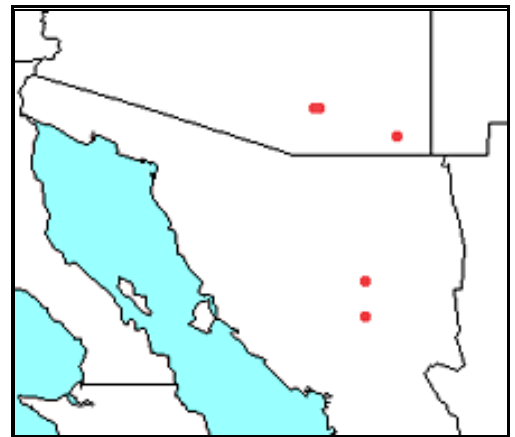
**Also known as:**  
Cockrum's Desert Shrew

**Length:**  
Average: 84 mm

**Weight:**  
Average: 3.5 g



An illustration of *Notiosorex crawfordi*. *Notiosorex cockrumi* is visibly indistinguishable from *N. crawfordi* and is found in the same type of habitat as *N. crawfordi*  
Credit: painting by Nancy Halliday from Kays and Wilson's *Mammals of North America*, © Princeton University Press (2002)



**FIELD NOTES**

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

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**Crawford's Gray Shrew**  
*(Notiosorex crawfordi)*

ORDER: Insectivora  
 FAMILY: Soricidae

These shrews live in deserts, but they seek out moister microhabitats within them, such as brushpiles or fallen logs. They have been found in beehives, and their tiny, golfball-sized nests have been found in dens built by—and sometimes still occupied by—woodrats. Captive individuals ate a variety of insects, including cockroaches, beetles, mealworms, and moths, and also accepted carrion. They would not attack live rodents, or eat salamanders, earthworms, or scorpions. Crawford's Gray Shrews give birth to litters of 3 to 5 relatively helpless, but rapidly maturing, young, which leave the nest by six weeks of age.

**Also known as:**  
 Gray Shrew, Desert Shrew

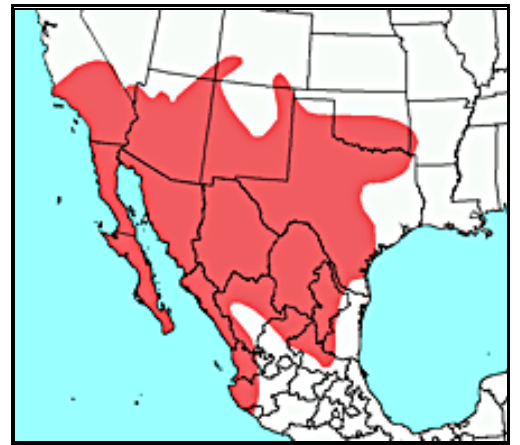
**Length:**  
 Average: 87.6 mm  
 Range: 77–98 mm

**Weight:**  
 Average: 4.3 g  
 Range: 2.9–6.3 g



*Notiosorex crawfordii* – Crawford's Gray Shrew

*Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)*



**FIELD NOTES**

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**Arizona Shrew**  
(*Sorex arizonae*)

ORDER: Insectivora  
FAMILY: Soricidae

**Conservation Status:** Vulnerable.

The Arizona Shrew was at first found only in Arizona, but it is now known to occur in New Mexico and northern Mexico as well. Until the 1990s, only about 22 specimens had ever been collected. Recent efforts to locate this shrew have paid off, though not much more is known about its habits. Like other shrews, the Arizona Shrew appears to be active at nearly every hour, with periods of rest between hunting and feeding excursions. The small stomach on this tiny mammal is not large enough to hold much surplus food, and that, in combination with a heightened metabolism, pushes the animal to nearly constant feeding activity. These shrews require a thick canopy of vegetation, and have been found on forested slopes at elevations between 1,575 m and 2,590 m.



**Sexual Dimorphism:**  
None

**Length:**  
Average: 101 mm  
Range: 79–114 mm

**Weight:**  
Average: 3.3 g  
Range: 1.9–5.2 g

**FIELD NOTES**

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

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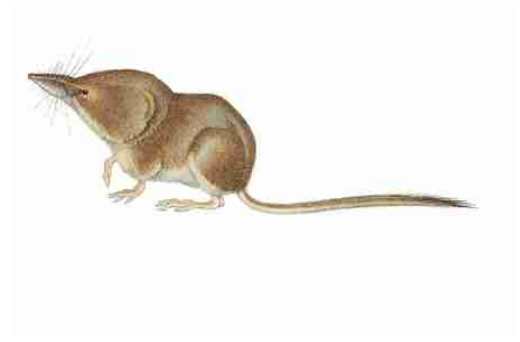


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**Cinereus Shrew**  
*(Sorex cinereus)*

ORDER: Insectivora  
FAMILY: Soricidae

Mainly nocturnal and rarely seen, the Cinereus Shrew is nonetheless common and widespread below the timberline in northern deciduous and coniferous forests, in both wet and dry habitats. It is also known as the Masked Shrew and the Common Shrew. Litter size ranges from 4–10, averaging 7. The newborns are about 15–17 mm long and are hairless, with fused eyelids. Their eyes open after 17 or 18 days, and they are weaned at approximately 20 days. The Cinereus Shrew is not distinctly marked. The back is brown, the underside is grayish white, and the tail has a blackish tip.



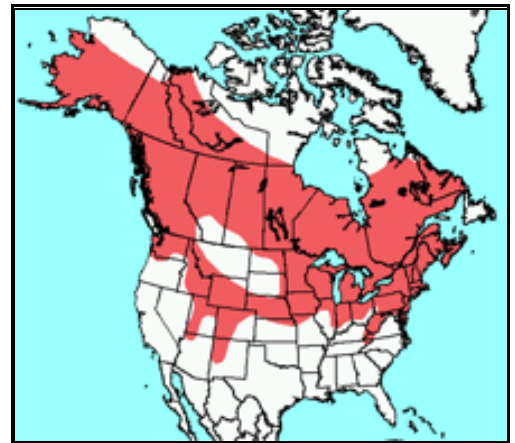
*Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)*

**Also known as:**  
Masked Shrew, Common Shrew

**Sexual Dimorphism:**  
None

**Length:**  
Average: 96.6 mm  
Range: 75–125 mm

**Weight:**  
Range: 2.2–5.4 g



**FIELD NOTES**

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**Merriam's Shrew**  
(*Sorex merriami*)

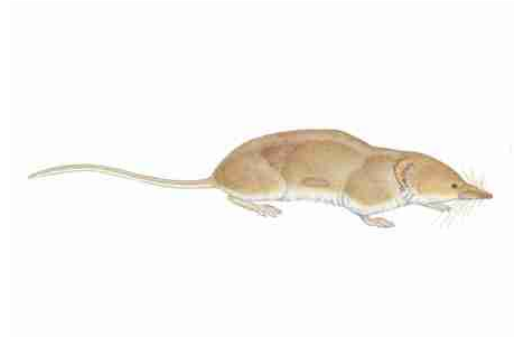
ORDER: Insectivora  
FAMILY: Soricidae

Merriam's Shrew is noted for its predilection for dry habitats. It is most often found in sagebrush steppe, but also in grassland, brushland, and woodland, at elevations from 200 m to 2,900 m. It preys on beetles, spiders, caterpillars, crickets, and wasps, and probably on many other terrestrial invertebrates. This shrew has a grayish–brown back, paler flanks, and a nearly white underside. The tail shows the same strong bicolouration. Owls are known to prey on shrews, but some mammals eat them only if they have no other food available, because of their pungent smell.

**Sexual Dimorphism:**  
None

**Length:**  
Average: 96.3 mm  
Range: 99–107 mm

**Weight:**  
Average: 5.9 g  
Range: 4–7 g



*Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)*



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**Montane Shrew**  
*(Sorex monticolus)*

ORDER: Insectivora  
FAMILY: Soricidae

Montane Shrews are among the most common shrews, and do well in a variety of moist habitats: thick, grassy areas near streams or rivers; meadows; thickets of willow and alder; spruce–fir forests; and alpine tundra. They are dietary generalists, eating insects, earthworms, and other invertebrates. Females can have two litters a year, usually of 5 or 6 young. The Montane Shrew may occur with as many as four other species of shrews, and except for the water shrew, it is usually the largest shrew where it is found. Normally, Montane Shrews do not live longer than 16–18 months.



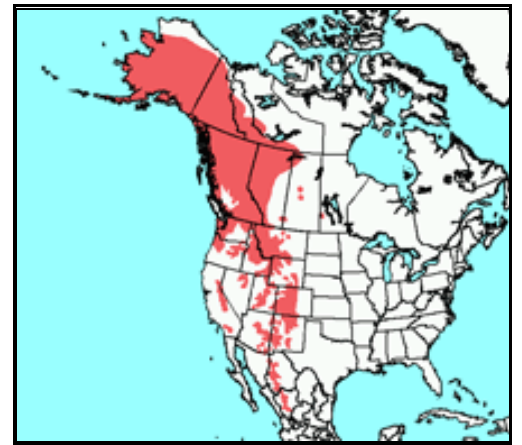
*Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)*

**Also known as:**  
Dusky Shrew

**Sexual Dimorphism:**  
None

**Length:**  
Average: 119 mm  
Range: 95–139 mm

**Weight:**  
Range: 4.4–10.2 g



**FIELD NOTES**

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

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**Dwarf Shrew**  
(*Sorex nanus*)

ORDER: Insectivora  
FAMILY: Soricidae

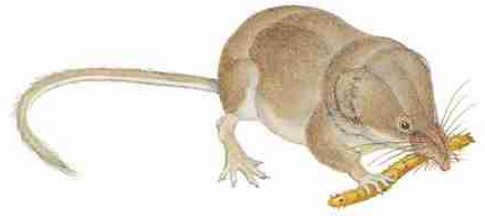
Because the Dwarf Shrew is so small, it doesn't trigger the older snap, or box traps, and before 1966, only 18 specimens had been collected. With the use of pitfall traps—which are basically cans sunk into the ground, so that the animal tumbles in and cannot jump out—many more Dwarf Shrews have been trapped, and more has been learned about their distribution, but its range may still be more extensive than has been recorded. It lives throughout the southern and central Rocky Mountains and adjacent plains, in habitats from alpine tundra to arid short-grass prairie. Being small, the Dwarf Shrew can work within smaller areas to prey upon smaller spiders and insect adults and larvae. It is particularly active, even for a shrew, because of its small size and high rate of metabolism.

**Also known as:**  
Rocky Mountain Dwarf Shrew

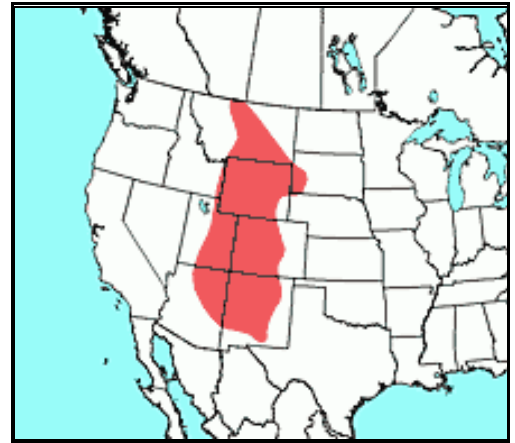
**Sexual Dimorphism:**  
None

**Length:**  
Range: 82–105 mm

**Weight:**  
Range: 1.8–3.2 g



*Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)*



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**Water Shrew**  
*(Sorex palustris )*

ORDER: Insectivora  
FAMILY: Soricidae

Water Shrews are almost invariably found near streams or other bodies of water, where they find food and also escape from predators. These shrews readily dive to stream bottoms, paddling furiously to keep from bobbing to the surface—their fur, full of trapped air, makes them buoyant. They feed on aquatic invertebrates, insect larvae, and even small fish. In the water they are susceptible to predation from larger fish and snakes. On land, Water Shrews have a more typical shrew diet, feeding on a variety of invertebrates, including earthworms, snails, and insects. They also eat fungi and green vegetation.



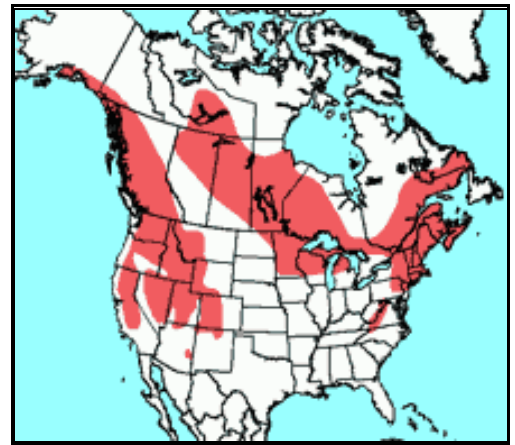
*Credit: painting by Nancy Halliday from Kays and Wilson's Mammals of North America, © Princeton University Press (2002)*

**Also known as:**  
American Water Shrew, Northern Water Shrew

**Sexual Dimorphism:**  
Males average slightly heavier and longer than females.

**Length:**  
Average: 151.4 mm  
Range: 130–170 mm

**Weight:**  
Average: 13.8 g  
Range: 8–18 g



**FIELD NOTES**

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**Preble's Shrew**  
(*Sorex preblei*)

ORDER: Insectivora  
FAMILY: Soricidae

Very little is known about the natural history of Preble's Shrew, which has been found in widely separate localities in much of the western United States. Specimens have been collected at elevations of 1,280 m in Oregon and 2,750 m in New Mexico. These shrews occur in arid or semiarid shrub-grass associations, in openings in coniferous forest where sagebrush grows, and in wet areas such as stream banks, marshes, and wet meadows. Features that distinguish them, other than their small size, are a grayish back and silvery underside and a bicolored tail that is olive-brown above and hazel below, darkening toward the tip. Details of its teeth and skull structure enable scientists to distinguish Preble's Shrew from other shrews. Late-Pleistocene fossils of this shrew have been found in caves in New Mexico.



**Also known as:**  
Malheur Shrew

**Length:**  
Range: 77–95 mm

**Weight:**  
Range: 2.1–4.1 g

**FIELD NOTES**

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