

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

MONTANE SHREW

Sorex monticolus

Family: SORICIDAE
M004

Order: INSECTIVORA

Class: MAMMALIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The montane shrew is found in the high Sierra Nevada and in isolated populations in mountains of San Bernardino and Los Angeles cos. Common in montane riparian and alpine dwarf-shrub habitats; fairly common in subalpine conifer, wet meadow, and high-elevation fresh emergent wetland habitats; uncommon in ponderosa pine, mixed conifer, red fir, Jeffrey pine, lodgepole pine, annual grass, and perennial grassland habitats (George 1999). Also found in similar habitats in Oregon and Washington (Ingles 1965), Canada (Wrigley et al. 1979) and Alaska, and in western hemlock in Washington (Terry 1981).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Preferred foods include adult, pupal, and larval insects, arachnids, snails, and earthworms (Whitaker and Maser 1976). Uses logs extensively for feeding (Thomas 1979). Will eat 5 or 6 termites and incapacitate 50 to 60 for future use. Ingles (1965) suggested they may have poison in their saliva. Prey captured on ground. Forages among debris on forest floor (Terry 1981). Winter feeding is undocumented. Some plant matter also eaten (Ingles 1965).

Cover: Requires moist soil. Tall sedges, stumps, logs, or litter provide cover (Ingles 1965). Restricted to layer of debris on forest floor (Terry 1981). Decaying logs often used (Thomas 1979).

Reproduction: Uses burrows frequently (Thomas 1979). Breeds February through October, with a peak in late spring-early summer. Nests in logs, stumps, litter, or in holes in the ground (Ingles 1965).

Water: Rarely found more than a few meters from water in summer (Ingles 1965). Requires moist soil.

Pattern: Riparian and wet meadow habitats within Jeffrey pine, red fir, and lodgepole pine forests are preferred.

SPECIES LIFE HISTORY

Activity Patterns: Active yearlong; does not hibernate in summer. There is a rhythmic activity behavior pattern with three peak periods of activity: morning, sunset, and during the coldest hours of early morning (Ingles 1960, 1965). Least active on warm summer afternoons. Active in winter under snow. Activity patterns persist in laboratory with constant food. Basically circadian (Ingles 1965).

Seasonal Movements/Migration: None.

Home Range: Thomas (1979) indicated that suitable habitat of at least 2 ha (5 ac) is required to support a population of shrews. Size of home range averages 0.04 ha (0.1 ac) (Hawes 1977) but varies greatly. Diameter may vary from 12-75 m (40-250 ft) (Ingles 1965). In Canada, home ranges of non-breeding individuals are about 1200

Territory: Notoriously solitary, but home ranges may overlap. At Huntington Lake, California, 11 shrews had home ranges on 0.3 ha (0.7 ac) one summer (Ingles 1965, Hawes 1977). Young individuals are somewhat territorial, not only with conspecifics, but also with other members of the genus (George 1999).

Reproduction: Two, or more, litters of 4 to 7 (mean of 5) per year (Ingles 1965, Wilson and Ruff 1999:32). One litter per year, of 4 to 6 (average 4), is cited by Thomas (1979).

Niche: Predators of shrews in general include owls, Steller's jays, and trout (Ingles 1965).

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Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.