

Myotis keaysi (Hairy-legged Myotis Bat)

Family: Vespertilionidae (Vesper or Evening Bats)

Order: Chiroptera (Bats)

Class: Mammalia (Mammals)



Fig. 1. Hairy-legged Myotis bat, *Myotis keaysi*.

[<http://www.inaturalist.org/observations/372941>, downloaded 28 March 2015]

TRAITS. The hairy-legged Myotis is a type of mouse-eared bat and gets its name from the pattern of fur growth between its thighs and tail membrane along the legs to the feet. The fur on the back is very woolly and falls within the range of 4-6mm (Hernández-Meza et al., 2005). The upper fur varies greatly from pinkish grey to dark grey brown to even reddish brown and orange (Fig. 1) with darker base fur (Reid, 2009). Size of the body varies with the geographic location of the specimens; the smallest are native to Yucatan and the largest are found in Guatemala and Chiapas. The fur of the membrane connecting the forelimb and hind limb is typically sparse to thick and the membrane itself is typically black or dark brown (Hernández-Meza et al., 2005). The length of the skull is small to moderate in size, the width across the upper canine ranges from 3-4 mm. The length of the ear falls within the range of 12-14 mm with an inflated braincase and steeply sloping forehead.

DISTRIBUTION. *Myotis keaysi* is one of many species of bats ranging from southern Mexico through Panama, the Yucatan Peninsula and Central America to northern Venezuela and Trinidad and Tobago (Hernández-Meza et al., 2005; Simmons, 2005) (Fig. 2). The hairy-legged *Myotis* is also widespread in western Colombia following the foothills of the Andes through Peru to northern Argentina. Specimens of this evening bat can be found at elevations up to 3300m above sea level although the majority of populations are found between 2000-2500m.

FEEDING. The hairy-legged *Myotis* is nocturnal like most bats. This means that it is active at night when it hunts for food and activity is low during the day most of which it spends in the day roost sleeping. Activity begins at sunset and ends about one hour before the sunrise when these bats return to their roosts. These bats are insectivorous, meaning that their main food source is insects. They tend to feed mainly on ground beetles and moths. Food consumed in one night consists of about 25-50% of the bat's body mass (Animal Diversity Web, 2002). These bats are not considered solitary or territorial since they have been observed at night hunting with other bats such as black *Myotis* bat (*Myotis nigricans*), the black mastiff bat (*Molossus rufus*) and the hairy yellow-shouldered bat (*Sturnira erythromos*). Other bats may fly above the hairy-legged *Myotis* when hunting which is a good reason why they may prefer to fly lower down.

ECOLOGY. *Myotis keaysi* inhabit a wide range of environments such as dry scrubland and tropical rainforest. They roost in limestone cave sites and hollow trees. These Neotropical bats also roost in manmade infrastructure such as roofs of buildings and houses and bridges (Reid, 2009). In these roosting sites, colonies of 200-500 individuals are common. The hairy-legged *Myotis* occupies dry pine forest at northern locations in Mexico and scrub at lower altitudes. In South America they are common in the moist, semi deciduous evergreen forests along with the humid tropical forests of the Andes. In Puebla, Mexico the hairy-legged *Myotis* has been observed roosting in caves with the black *Myotis* bat in groups consisting of two to eight individuals.

REPRODUCTION. Breeding within populations occurs throughout most of the year with only a brief period of reproductive inactivity. This reproductive pattern is referred to as seasonal polyoestry. Fertilization generally occurs in February and the gestation period last for about 60-70 days. The birth rate in these bat populations usually increase in the months of May, June and July (La Val and Fitch, 1977). The offspring stay with their mothers for about two weeks, after which they become independent and their mothers are available to mate again (Animal Diversity Web, 2002).

BEHAVIOUR. *Myotis keaysi* usually flies low in forests and clearings and over streams where it drinks water and may prey upon insects near and along the water channel. Individuals have been recaptured after long distances indicating that the area of activity for this species is great (La Val and Fitch, 1977). Like most bats, this species of bat uses echolocation to find insects and direct their path as they fly since their eyesight is weak. The sounds they produced are short, typically high in intensity and variably repeated within small time intervals. The initial calls of these bats are high in frequency which lowers as the sound progresses.

APPLIED ECOLOGY. Listed in the "Least Concern" category by the IUCN. Since this species is widely distributed, has a large population size and populations often occur in protected areas it

is improbable that the rate of decline of the species population allows it to qualify as an endangered (IUCN, 2014). There are no major threats posed to the hairy-legged Myotis.

REFERENCES

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Posted online: 2015



Fig. 2. Hairy-legged Myotis geographic distribution.

[<http://maps.iucnredlist.org/map.html?id=14170>, downloaded 28 March 2015]