

Mammals of Oaxaca (part 1)

Juan Cruzado Cortes and Venkat Sankar (author)

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Sierra Juarez (Santiago Comaltepec)

This beautiful mountain range stretches north of Oaxaca City to the Gulf coastal plain near Tuxtepec, Veracruz, rising to heights of over 3000m on the continental divide. The first range between Oaxaca City and Ixtlan de Juarez is mostly covered in relatively uninteresting dry pine forest, though **Mexican Gray Squirrel** is common and Juan caught dozens of **Southern Rock Mice** (*felipensis*) and observed **Southern Flying Squirrel** (*goldmani*) on surveys 15 years ago.

Above Ixtlan de Juarez, the landscape and vegetation grow more noticeably under the influence of moist Gulf air masses. Llano de las Flores (17.4429, -96.5036) has nice mountain meadows and mesic pine-oak-fir forests (very interesting if you're into conifers); **Mexican Vole** and **Orizaba Deer Mouse** are common and **Aztec Mouse**, **Small-toothed** and **Sumichrast's Harvest Mice**, and **Chestnut-bellied Shrew** occur. There is a capture record of near-mythical **Mexican Water Mouse** from a stream near San Pablo Macuilianguis (17.5505, -96.5036). Cold high-elevation pine-oak cloud forests on Cerro Pelon (17.5851, -96.5091) are the best place to look for rare **Ixtlan Crest-tailed Mouse** and extremely rare **Chinanteco Crest-tailed Mouse**.



Oaxaca Giant Deer Mouse (*Megadontomys cryophilus*), an impressive Mexican endemic genus; this species is only found in cloud forests of the Sierra Juarez

The main area of interest is the extremely scenic, well-preserved, and endemic-rich cloud forests on the Gulf slope of the range, between 2500m and 1500m. Endemic **Black-wristed Deer Mice** and **Chapman's Rice Rats** are abundant, while **Forest Spiny Pocket Mouse**, **Tarabundi Vole** (disturbed areas and clearings with grasses and wild strawberry), **Oaxaca Giant Deer Mouse**, **Mexican Harvest Mouse**, **Big Small-eared Shrew**, and **Mexican Small-eared Shrew** are not uncommon but more difficult to find. The best place to look for endemic small mammals of the cloud forest is the disused road running from the dilapidated building at (17.6006, -96.4173), at the turnoff to San Isidro. Rodent diversity decreases markedly around 1500m, where **Mexican Deer**

Mouse accounts for most rodent biomass. It's easy to catch on the slope across from Comedor "Lulu," along Highway 175 in La Esperanza Comaltepec. For other species, like **Deppe's Squirrel**, **Vesper Rat** (reportedly quite common: [link](#)), **Peters' Climbing Rat**, **Long-nosed Rice Rat**, and **Kinkajou**, try the trail leading from (17.6281, -96.3468). This site, located along a ridgeline, is great for bats (we saw many, recorded 7+ species) but unfortunately not well set-up for mistnetting.

It's best to search for bats below 1500m (even better below 1000m), where species diversity and abundance increase sharply as mid-elevation cloud forests grade into true lowland rainforest. **Toltec Fruit-eating Bat** and **Honduran Yellow-shouldered Bat** are abundant, while **Hairy-legged Myotis**, **Sowell's Short-tailed Bat**, **Common Long-tongued Bat**, and **Wrinkle-faced Bat** are common ([link](#)). There is a long list of rarer species, with **Van Gelder's Bat**, **Pale Spear-nosed Bat**, **Fringe-lipped Bat**, **Western Long-tongued Bat**, **Underwood's Long-tongued Bat**, **Salvin's Big-eyed Bat**, and **Great Stripe-faced Bat** all possible. It's worth noting however that the rugged terrain and lack of roads makes finding a good site for mistnetting, whether a water source or flat, enclosed area along a ridgeline very difficult. **Black Mastiff Bat** is abundant over the Rio Soyolapan (sometimes called Rio Valle Nacional) at Puerto Eligio (17.7007, -96.2764).



Pale Spear-nosed Bat (*Phyllostomus discolor*), an uncommon bat of the low Sierra Juarez

Lots of nice larger mammals are present in the range (5 species of **cats**, **Baird's Tapir**, **Tayra**, **Greater Grison**, **Ringtail** and **Cacomistle**, **Mexican Agouti**, **Central American Red Brocket**, etc.), especially at lower elevations but the lack of good roads for night drives and inaccessibility of high-quality habitat makes sightings extremely unlikely. The only likely sightings are **Virginia** and **Common Opossums**, 2 species of **squirrels**, and **Kinkajou**.

Mixteca Alta (Santo Domingo Yanhuitlan)

A region of highly heterogeneous habitat comprising semiarid plateaus with xeric vegetation, oak and juniper woodlands, and dry oak-pine forests in rolling mountains, this is the Southernmost extension of the Mexican Plateau and a good place to see some of its rarer endemics. The elevation

in most places, like my base at Santo Domingo Yanhuitlan, is above 2200m so it can be surprisingly cold at night. Diurnal wildlife is very sparse, though **Rock Squirrel** is reportedly expanding into the area, mostly in human-modified settings near town. However, the area does come alive with many endemics and rare species at night.

There is a long list of local rodent species, thanks to excellent habitat diversity. **Mexican Spiny Pocket Mouse** and **Plateau Mouse** occur in flatter, semiarid lowlands, while eroded badlands and rolling oak woodlands (very reminiscent of central California) near town are good for **Southern Rock** (*felipensis*), **Osgood's**, and **Plateau Mice** and **White-eared Cotton Rat** (in overgrown vegetation along streams). Look for **Mexican Vole** (grassy clearings, often near streams), **Mexican Woodrat** (*isthmica*), **Orizaba Deer**, **Southern Rock**, **Osgood's**, and possibly **Black-eared Mice** in pine-oak forests in nearby mountains (where very rare ssp. *oaxacensis* of **Southern Flying Squirrel** occurs). It's advisable to contact locals if you want to trap rodents; Leoncio Paz Ibarra owns a couple of ranches with good habitat diversity and abandoned cabins (great for all *Peromyscus*).



Orizaba Deer Mouse (*Peromyscus beatae*) is a common but local species of S Mexican mountains

Bats are quite interesting, containing a mix of rather uncommon highland specialties, Mexican Plateau endemics, and widespread Nearctic species. The best place for mistnetting I found was along a small stream in an oak woodland valley (with xeric vegetation at its mouth) north of town (17.5879, -97.3617), surrounded by mountains with pine-oak forest. Common Nearctic species like **Cave Myotis**, **Big Brown Bat**, and **Mexican Free-tailed Bat** should be easy to find as long as it's not too cold, and this is a great site for plateau and montane specialties like **Allen's** and **Slender Yellow Bats**, **Aztec** and **Toltec Fruit-eating Bats**, and **Honduran Yellow-shouldered Bat**. Other species that should be around are **California Myotis**, **Big Free-tailed Bat**, **Mexican Long-tongued Bat** (around flowering yuccas and agaves), and possibly **Underwood's Bonneted Bat** and **Aztec Mastiff Bat**. A small stream below a highway bridge near town also proved ok for mistnetting (17.5174, -97.3374).



Aztec Fruit-eating Bat (*Dermanura azteca*) is a scarce fruit bat of montane pine-oak forests

Medium sized mammals, in a surprising contrast to other regions of mainland Mexico, seemed remarkably abundant and diverse presumably due to lower hunting pressure. **Mexican** and **Eastern Cottontails** (*orizabae*) are abundant throughout the area, while **White-sided Jackrabbit** and **Hooded Skunk** are quite common around agricultural areas south of town. Our hosts told us **Virginia Opossum**, **Coyote**, **Gray Fox** (common along streams in the valley), **American Hog-nosed Skunk**, and **Ringtail** are all around too.

Species observed:

1. Virginia Opossum (*Didelphis virginiana*) – 1 spotlight near (17.6522, -96.3886) along a steep dirt road below La Esperanza (~800m)
2. Mexican Gray Squirrel (*Sciurus aureogaster*) – 2 in the Sierra Juarez: 1 on the summit of Cerro Pelon and 1 in oak forest near Ixtlan de Juarez
3. Deppe's Squirrel (*Sciurus deppei*) – 1 seen well on the dirt road below La Esperanza
4. Forest Spiny Pocket Mouse (*Heteromys desmarestianus*) – 1 captured along the hiking trail at (17.5918, -96.3980) (1900m)



5. Tarabundi Vole (*Microtus oaxacensis*) – 1 observed in an area of moist vegetation at the base of a rock wall along the disused road near the San Isidro turnoff (2100m)
6. Oaxaca Giant Deer Mouse (*Megadontomys cryophilus*) – 1 large female captured along the disused road near the San Isidro turnoff (2100m)
7. Orizaba Deer Mouse (*Peromyscus beatae*) – 1 captured in a disused cabin in rocky pine-oak forest above Santo Domingo Yanhuitlan (2500m)
8. Southern Rock Mouse (*Peromyscus difficilis felipensis*) – 3 captured in disused cabins in rocky pine-oak forest above Santo Domingo Yanhuitlan (2500m)



9. Black-wristed Deer Mouse (*Peromyscus melanocarpus*) – 2 captured along the disused road near the San Isidro turnoff (2100m)



10. Mexican Deer Mouse (*Peromyscus mexicanus*) – 6 captured on the slope across Comedor “Lulu” in La Esperanza Comaltepec, along Highway 175 (17.6275, -96.3678)



Mexican Deer Mouse



Chapman's Rice Rat

11. Chapman's Rice Rat (*Handleyomys chapmani*) – 1 captured along the disused road near the San Isidro turnoff and another along the hiking trail at (17.5918, -96.3980)
12. Mexican Cottontail (*Sylvilagus cunicularius*) – many seen on night drives in agricultural land surrounding Santo Domingo Yanhuitlan (especially South of town)
13. Eastern Cottontail (*Sylvilagus floridanus orizabae*) – many seen on night drives in agricultural land south of San Domingo Yanhuitlan
14. White-sided Jackrabbit (*Lepus callotis*) – 4 seen well on night drives in agricultural land south of Santo Domingo Yanhuitlan and 1 in planted pines (strange...) north of town
15. Hairy-legged Myotis (*Myotis keaysi*) – small numbers seen (ID by detector) along the dirt road below La Esperanza
16. Cave Myotis (*Myotis velifer*) – small numbers seen (ID by detector) along the oak woodland-lined stream north of Santo Domingo Yanhuitlan
17. Big Brown Bat (*Eptesicus fuscus*) – 1 seen (ID by detector) along the oak woodland-lined stream north of Santo Domingo Yanhuitlan
18. Allen's Yellow Bat (*Rhogeessa [Baeodon] alleni*) – 1 seen (ID by detector) along the oak woodland-lined stream north of Santo Domingo Yanhuitlan; a rare species of thornscrub and oak woodlands of the Mexican Plateau, large and morphologically distinctive for *Rhogeessa*
19. Black Mastiff Bat (*Molossus rufus*) – many seen (ID by detector) hawking over the Rio Soyolapan at Puerto Eligio, plus a mystery *Molossus* recorded near Yanhuitlan
20. Peale's Free-tailed Bat (*Nyctinomops aurispinosus*) – at least 2 seen (ID by detector) at Jardin Etnobotanico in Oaxaca City
21. Mexican Free-tailed Bat (*Tadarida brasiliensis*) – many seen (ID by detector) at Jardin Etnobotanico in Oaxaca City and small numbers seen near Santo Domingo Yanhuitlan
22. Pale Spear-nosed Bat (*Phyllostomus discolor*) – 1 mistnetted at (17.6522, -96.3886) along a stream crossing on the dirt road road below La Esperanza
23. Seba's Short-tailed Bat (*Carollia perspicillata*) – 1 mistnetted at (17.6522, -96.3886) along a stream crossing on the dirt road road below La Esperanza



Seba's Short-tailed Bat



Sowell's Short-tailed Bat

- 24. Sowell's Short-tailed Bat (*Carollia sowelli*) – 1 mistnetted at (17.6522, -96.3886) along a stream crossing on the dirt road below La Esperanza
- 25. Aztec Fruit-eating Bat (*Dermanura azteca*) – 1 captured along the oak woodland-lined stream North of Santo Domingo Yanhuitlan and 2 at (17.5174, -97.3374), under a bridge



Aztec Fruit-eating Bat



Toltec Fruit-eating Bat

- 26. Toltec Fruit-eating Bat (*Dermanura tolteca*) – 1 captured under a highway bridge near Santo Domingo Yanhuitlan; surprisingly none captured in the Sierra Juarez
- 27. Honduran Yellow-shouldered Bat (*Sturnira hondurensis*) – 1 captured below La Esperanza Comaltepec and two more north of Santo Domingo Yanhuitlan

