

Tarantula Time

By Ken Lavin

Autumn is a delightful time to hike the golden hills of Mount Diablo. But unsuspecting hikers are often startled to find themselves sharing the trails with some



rather formidable eight legged walking companions! "What are the critters doing?" "Where are they going?" "Will they hurt me?" These are the common questions park staff and park volunteers must answer this time of year. Fall is tarantula time on Mount Diablo.

Mount Diablo's tarantulas (*Aphonopelma* sp.) have long inspired fear and fascination. One 19th century visitor described our local tarantula as "attaining the size of a small bird, possessing fangs the size of a rattlesnake's, and delivering a bite generally considered fatal!" In reality, the tarantula is one of Mount Diablo's most innocuous animals—a terror to small insects and not much else!

Outside of horror movies, no person has ever been killed by a tarantula. Tarantulas have very small venom glands and the bite of our local tarantula is no more painful than a bee sting. Harmful spider bites generally come from poisonous spiders that are too small to notice. The tarantula, being so conspicuous, gets the blame.

For example, in Renaissance Italy, the bite of a tarantula was thought to cause convulsions. The only known treatment was to sweat the poison out by frenetic dancing. This was the origin of the tarantella, the dance named for a spider! In reality, a European black widow, and not the innocent tarantula, was the culprit doing the biting.

The tarantula's main weapon against larger creatures is defensive. If a bobcat or fox is harassing it, the spider rises up on its front legs and with its back legs scrapes off a cloud of barbed, porcupine-like hairs from its abdomen into the face of its tormentor. This tactic sometimes gives the tarantula time to escape. It also gives rise to another common visitor query, "Why does that tarantula have a bald butt?"

Although most commonly seen wandering the roads and trails in late summer and early fall, tarantulas are on the mountain all year. They are seldom seen at other times because they live in underground burrows and are nocturnal in their habits. Typically, a hunting tarantula waits patiently near the opening to its burrow until an unsuspecting insect (usually a cricket) crawls by. The spider rushes out, bites the prey, and drags its victim back into the burrow. In the dark of night, this activity goes unnoticed (except by the cricket!).

This secretive existence ends in late summer, when male tarantulas that have reached about 7 years of age shed their exoskeleton for the last time. They have finished growing. The mature spiders leave their burrows and begin to search for female tarantulas. It is this horde of love struck males, searching for females with which to mate, that forms the annual "tarantula migration" park visitors witness each year in September and October.

Male and female tarantulas are difficult to tell apart until the last molt, when the male spider develops little stirrups on its front legs. Why does the tarantula need these strange appendages? When the male finally locates a female tarantula and entices her out of her burrow, her thoughts are not on love but on dinner. In order to safely mate, the male spider must hook and secure the female's fangs using the stirrups on his front legs.

After mating, the male scurries away, and the female usually allows him to leave. It is a myth that female tarantulas always kill the males after mating. A female will con-

sume the male only if she is famished and needs a meal to be able to lay eggs. Otherwise, she allows her paramour to retreat in safety.

Though free to live another day, the roving male spider never returns to his burrow. Rather, he wanders around searching for other females until he finally dies with the onset of cold weather. The stay-at-home mother tarantula, by contrast, may live to the ripe old age of 20 years or more.

After mating, the female retreats to her burrow and lays about 100 eggs on top a sheet of silk spun from her spinnerets. Momma spider shapes the silken sheet into a basket and guards the eggs inside until they hatch. Soon after hatching, the tiny spiderlings crawl out and leave the burrow. Of the hundred or so eggs laid, perhaps one or two spiders will survive to adulthood. It's not easy being a tarantula.

In fall, pesky yellow jacket wasps are the bane of Mt. Diablo picnickers. The picnickers should consider themselves lucky, for the wandering tarantula must contend with a far more formidable flying foe. The spider's antagonist is a large black and orange wasp, known as a tarantula hawk (*Pepsis* sp.) The female wasp flies around searching for a tarantula. When she locates one, the wasp attacks and stings the spider under a leg. This does not kill the tarantula, but it does paralyze him. The wasp drags the spider off, scrapes out a hole, and pushes him in. Before she covers the tarantula, the wasp lays a single egg on the helpless spider. When the egg hatches, the wasp larva dines on fresh tarantula meat!

For all their fearsome reputation, Mount Diablo's tarantulas are really gentle souls that play an important part in the web of life on our island mountain. So the next time you encounter a tarantula on the trail, remember the old adage, "if you wish to live and thrive, let a spider run alive!"

Dogs are not Allowed in the Backcountry of Mt. Diablo State Park because...

By Vince Anibale, Mount Diablo State Park Ranger

...they are predatory animals. Dogs marking territory confuse the native wildlife and may cause other animals [i.e. rabbits, foxes, coyotes] to completely avoid areas frequently traveled by dogs.

...dogs pass on diseases like Parvo through feces and bodily fluid to native wildlife, especially to coyotes, and coyotes don't get vaccinations from the vet.

...Mt. Diablo is one of the few areas left in the Bay Area where native wildlife can live without harassment from foreign predatory animals [dogs].

...some dogs act aggressively or demonstrate strange behavior when placed into a foreign element like a large park. Dogs become more likely to bite when approached by hikers, mountain bikers, and horses because they may feel threatened. Mt. Diablo has had incidents in which dogs have threatened and/or attacked horses and people.

...some dogs love to chase and be chased. Dogs have been known to chase squirrels, rabbits, deer, and coyotes. This situation is dangerous for the dog and the animal being chased. Mt. Diablo had a dog fatality at Rock City as a result of cliff fall while chasing coyotes. Furthermore, other parks that allow dogs have shown that over time, dogs will literally "chase" away local wildlife, especially deer, causing them to abandon their park completely.

...dogs are curious animals. They like to sniff, smell, and explore as many areas as possible. Dogs will pick up ticks and sometimes get bitten by rattlesnakes.

...there are many other parks in the East Bay where dogs can be taken on trails. Some of these places include:

- Morgan Territory Regional Park [EBRPD; near Livermore]
- Del Valle Regional Park [EBRPD; Livermore area]
- Castle Rock and Diablo Foothills Regional Park [EBRPD; Walnut Creek area]
- Briones Regional Park [EBRPD; Lafayette-Martinez area]
- Las Trampas Regional Wilderness [EBRPD; Danville-Alamo area]
- Pleasanton Ridge Regional Park [EBRPD; Pleasanton area]
- Black Diamond Mines Regional Preserve [EBRPD; Antioch area]
- Point Isabel Regional Shoreline [EBRPD; Richmond]
- Lime Ridge and Shell Ridge Recreation Areas [City of Walnut Creek]
- Paso Nogal [City of Pleasant Hill]
- Livermore Canine Park [City of Livermore]

At Mount Diablo State Park, dogs are allowed in developed areas (picnic sites, campgrounds, and paved roads) only. They must be on a leash measuring no more than six feet in length at all times. While camping, dogs must remain in a tent, camper, or enclosed vehicle during the night. Noisy, vicious, or dangerous dogs are prohibited.

• Authority: California Code of Regulations, Title 14, Section 4312.

Ranger Bike Patrols

By Carl Nielson, Mount Diablo State Park Ranger

Don't be surprised to see a ranger on a bike during your visit to Mount Diablo State Park! The park has acquired two mountain bikes for patrol purposes. The American Lung Association following the 2003 "Mountain Challenge" special event donated the Marin Nail Trails bikes. The "Mountain Challenge" is an annual bike ride that begins at Athenian School and finishes at the Summit. It attracts approximately one thousand riders. We worked with Chuck Tyler of the Dublin Cyclery to obtain these bikes and assorted equipment.

Patrolling by bike is environmentally sound and inexpensive. The patrols will increase ranger contacts with the public, promote bicycle use and physical fitness, increase ranger presence in the backcountry, and will provide greater mobility and access on special patrols and responses. The patrols also recognize the many bicyclists that use the park – bicyclists are an important and significant user group of Mount Diablo State Park.

Ranger bike patrols are conducted on paved roads and developed sites, as well as the fire roads and authorized single tracks in Mount Diablo's backcountry. Hope to see you out there while I'm on patrol!



Manzanita
(*Arctostaphylos* spp.)