



PLANTS,
ANIMALS &
MORE

T-BONE TRAIL

Guide

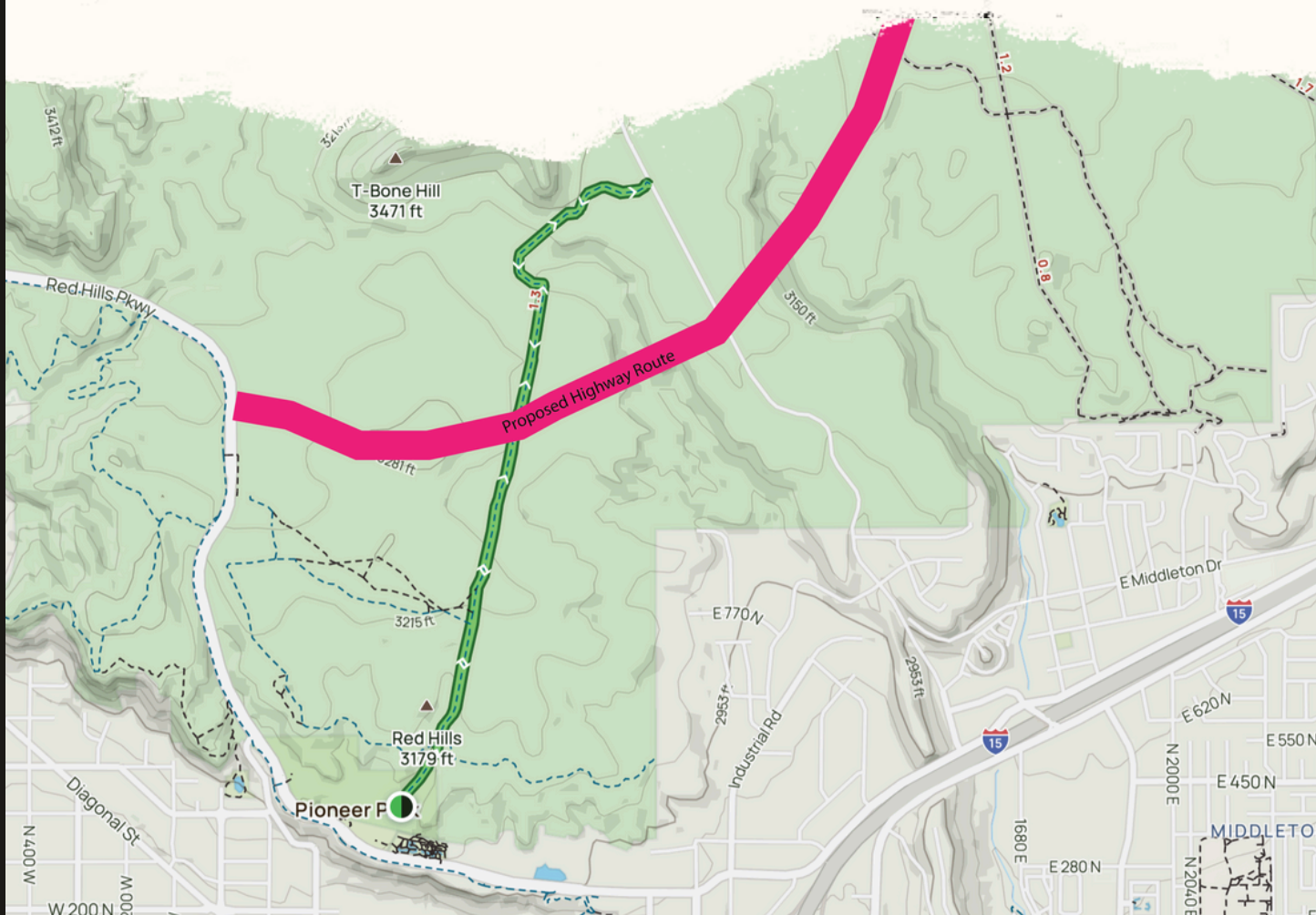


Conserve
Southwest
Utah

WWW.PROTECTREDCLIFFS.COM



T-Bone Trail is a popular 3.7 mile trail that journeys into the heart of Red Cliffs Desert Reserve and National Conservation Area (Red Cliffs NCA). The proposed Northern Corridor Highway would bisect the trail, diminishing this beloved recreational space and destroying a vital ecosystem. If you would like to help protect T-Bone Trail, please visit www.protectredcliffs.com.





T-Bone Hill

T-Bone Hill is a lava flow on top of sandstone. A very long time ago, this area was mostly covered in the lava rock basalt. But as the rivers worked around T-Bone and swept the sandstone away from its base, the very hard basalt cap protected the hill from erosion and thus, it remains to this day.

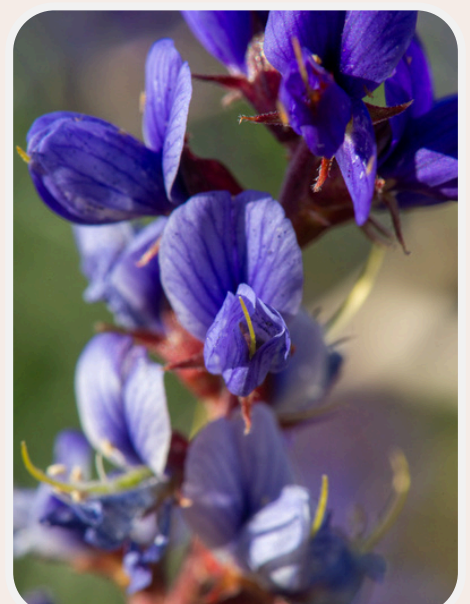
Plants

Surprising Blooms

In the spring, Red Cliffs NCA bursts into a stunning display of colors, with vibrant flowers contrasting against the red sand and black rock.

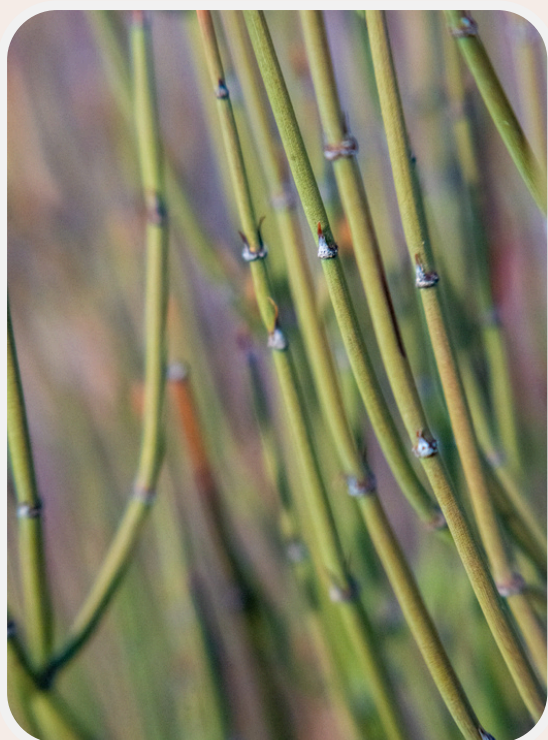
The state flower, the **sego lily**, can be found here, as well as orange **desert mallow**, pink and white **mojave buckwheat** flowers, vibrant purple **desert indigobush**, and brilliant yellow **creosote**, desert **marigold**, and **buttonbush** blooms.

Not to mention the great big white sacred **datura flowers** that can be found most of the summer!



Survival Strategies

Desert plants have spent a long time getting used to the dry and hot conditions, and it has driven them to grow in some strange ways. Many plants in the desert use **trichomes**, or little hairs on the leaves and stems, to help protect them from the desert sun. The hairs create a cushion of air and some shade, so the leaves don't get too hot and lose water. There is no better example of this than the star-shaped trichomes of the **desert mallow**. They are everywhere on this trail. Keep an eye out for them and notice how fluffy the leaves are!



Desert trumpet grows hollow inside and a waxy cuticle on the outside to protect it from water loss.

Brigham tea has adapted leaves so small that they just look like little scales.

We even have a local moss — **star moss** — that has learned to live here by going into a deathlike state during the dry season, then kick starting their metabolism very quickly at the first sign of moisture!

Perhaps most interesting and puzzling desert plant is the lichen. **Lichen** is an algae — or photosynthetic bacteria — that has adapted to live within a fungus. The fungus protects the algae from the sun, and collects nutrients and minerals from the surrounding rocks, which it trades with the alga. In return, the lichen algae uses photosynthesis to make food for itself and the fungus.



Sand Dunes and Diversity

Around the base of T-Bone mountain and as you're walking among the sand dunes, pay attention to the plants. You should notice that there is a quite sudden increase in variety. That is because this rocky, sandy transition area has many different types of habitat, which means more ecological niches for the plants and animals in this zone. Most of the types of plants in Red Cliffs NCA can be found here. Most notable are the many species of sagebrush, cacti, and members of the nightshade family: sacred datura, desert tobacco, and silverleaf nightshade.



The plant that holds it all together

Ecologically speaking, T-Bone mountain is in a zone called Creosote Scrubland.

Creosote – or *Larrea tridentata* – is vital to creating enough structure in the soil for burrowers (like the desert tortoise) to make their homes. It also provides nesting sites for birds, flowers for pollinators, and even keeps the sand dunes from drifting around.





Resilient Creatures

Red Cliffs NCA teems with life, showcasing an array of wildlife that thrives in this unique desert ecosystem. Visitors can spot the sagely **Mojave desert tortoise**, the energetic white-tailed **antelope squirrel**, and the majestic **red-tailed hawk**.

Keep an eye out for the **roadrunner** sprinting across the terrain and the **great horned owl** calling at dusk.

Whether it's the vibrant **chuckwalla** basking in the sun or the elusive **kit fox** prowling in the twilight, Red Cliff's wildlife offers a spectacular glimpse into the desert's hidden wonders.

Many desert critters rely on camouflage to stay out of sight from potential predators. If you see any mammals here, take a minute to notice their belly – is it lighter than the top of them? This countershading makes them harder to see, as their light underside counteracts the darkness of the shadows, making them look like a solid blob.

Meanwhile, many reptiles and arthropods – like **wolf spider** – blend in to their surroundings perfectly. Though occasionally, they'll take the opposite approach – standing out like the bright red **King Snake** to warn other creatures to stay away.





Burrows and Nests

The best way to spot an animal is to look for its home. Along T-Bone Trail, you might be lucky enough to spot the unique homes of the cactus wren, or the pack rat (aka - desert woodrat).

The **woodrat** has a fascinating habit of bringing cactus spikes home with them to help protect their house from would-be intruders.

Cactus wrens skip a step and just build their nests directly in the center of big cactuses, usually cholla in this region. This ensures their babies will be safe from almost all predators, as hardly anybody is a fan of a cactus prick.





Elders of the Landscape

Red Cliffs NCA was created to protect many species (including the Shivwits Milkvetch), but the most famous is undoubtedly the **Mojave Desert Tortoise**.

These wonderful reptiles hibernate for 4-6 months every year and can live to 80 years old! They are excellent diggers, creating dens that are about 10 feet deep, and they primarily eat cactus and flowers.

The desert tortoise is a **keystone species**. Their burrows provide shelter for many other animals, including lizards, snakes, and small mammals. This means, protecting desert tortoises helps protect the ecosystem as a whole!



Conserve
Southwest
Utah

Plants

- _____ Big galleta grass (*Pleuraphis rigida*)
- _____ Cholla (*Cylindropuntia sp.*)
- _____ Cinchweed (*Pectis papposa*)
- _____ Creosote (*Larrea tridentata*)
- _____ Desert almond (*Prunus fasciculata*)
- _____ Desert evening primrose (*Oenothera primiveris*)
- _____ Desert rice grass (*Achnatherum hymenoides*)
- _____ Desert tobacco (*Nicotiana obtusifolia*)
- _____ Four wing saltbush (*Atriplex canescens*)
- _____ Globe mallow (*Sphaeralcea ambigua*)
- _____ Mormon tea (*Ephedra viridis*)
- _____ Prickly pear (*Opuntia sp.*)
- _____ Sand sagebrush (*Artemisia filifolia*)
- _____ Segoe lily (*Calochortus nuttallii*)
- _____ Silver leaf nightshade (*Solanum elaeagnifolium*)
- _____ Trailing windmill (*Allionia incarnata*)
- _____ Four o'clock flowers (*Mirabilis multiflora*)
- _____ Wire lettuce (*Stephanomeria pauciflora*)

Geology

- _____ Basalt formations
- _____ Canyon formations
- _____ Conglomerate rock
- _____ Cryptobiotic soil crusts
- _____ Lava rock
- _____ Lava tubes
- _____ Limestone
- _____ Petrified dunes
- _____ Quartzite
- _____ Red Navajo sandstone
- _____ Sand dunes

Animals

- _____ Black-tailed jackrabbit (*Lepus californicus*)
- _____ Chuckwalla (*Sauromalus ater*)
- _____ Cottontail rabbit (*Sylvilagus floridanus*)
- _____ Coyote (*Canis latrans*)
- _____ Desert spiny lizard (*Sceloporus magister*)
- _____ Desert wood rat (*Neotoma lepida*)
- _____ Giant desert hairy scorpion (*Hadrurus arizonensis*)
- _____ Gila monster (*Heloderma suspectum*)
- _____ Gopher snake (*Pituophis catenifer*)
- _____ Grey fox (*Urocyon cinereoargenteus*)
- _____ Ground snake (*Sonora semiannulata*)
- _____ Kit fox (*Vulpes macrotis*)
- _____ Merriam's kangaroo rat (*Dipodomys merriami*)
- _____ Mojave desert tortoise (*Gopherus agassizii*)
- _____ Skunk (*Mephitis mephitis*)
- _____ Western diamondback rattlesnake (*Crotalus atrox*)
- _____ White-tailed antelope squirrel
(*Ammospermophilus leucurus*)

Birds

- _____ Barn owl (*Tyto alba*)
- _____ Cactus wren (*Campylorhynchus brunneicapillus*)
- _____ Common raven (*Corvus corax*)
- _____ Cooper's hawk (*Accipiter cooperii*)
- _____ European collared dove (*Streptopelia decaocto*)
- _____ Great horned owl (*Bubo virginianus*)
- _____ Loggerhead shrike (*Lanius ludovicianus*)
- _____ Red-tailed hawk (*Buteo jamaicensis*)
- _____ Roadrunner (*Geococcyx californianus*)
- _____ Rock wren (*Salpinctes obsoletus*)
- _____ White-crowned sparrow (*Zonotrichia leucophrys*)

HOW MANY DID YOU SEE?

_____ TOTAL

A person with a beard, wearing a light-colored jacket and dark pants, is sitting on a large, reddish-brown rock formation. They are looking out over a vast desert landscape with sparse vegetation and a winding road in the distance. In the background, there are large, rugged mountains under a clear sky. The scene is captured during the golden hour, with warm lighting.

Help protect T-Bone Trail from the proposed Northern Corridor Highway through Red Cliffs NCA!

WWW.PROTECTREDCLIFFS.COM



Photography & Factual Contributions by Brady Iverson
@the_swampmonster