

## **Zebra Slot Canyon**

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### **Overview**

Zebra Slot Canyon is a short and unique slot canyon, named for its beautifully striped Navajo Sandstone walls. To see all of Zebra Slot will require some familiarity with stemming, a technique require pushing off both walls of the canyon to suspend yourself above the floor. Some may be visiting Tunnel Slot as well, another short and unique slot canyon near Zebra, named for its narrow opening at the top with a wide opening at the bottom. It's important to note that flash floods can dramatically change the access to these canyons: sometimes you can walk through them without getting your feet wet, other times they will require swimming. Check with the visitor center for up to date conditions. Many hikers will not realize they may have to get their feet wet and will abort if its required.

### **Driving directions**

Accessed by a dirt road – check with the visitor center for road conditions

No high clearance or four-wheel drive necessary

Drive down Hole in the Rock Road 7.8 miles to the third cattleguard. Park in the disturbed area just past the cattleguard on the right. Likely, this stretch of Hole in the Rock Road will become impassable only with rain events 2 or more days long, as long as it has dried out somewhat.

### **Hiking route**

Easy hike with poorly defined trail, difficult stemming at the end

5 miles round trip, minimal elevation change

#### **To Zebra Slot Canyon**

Cross Hole in the Rock Road and find the well-defined social trail that takes you along Halfway Hollow. After 2 miles you'll meet the much larger Harris Wash. The trail splits and becomes difficult to find. Go up the wash (left/north) and find the first side drainage on the far side of Harris (0.25 miles), this will lead you to Zebra Slot. Missing this junction can lead to getting lost so be aware! Also, be sure to look behind you to remember what Halfway Hollow looks like.

Zebra Slot is just a short hike up this wash. Wading through gross water is sometimes required just prior to getting to the good stuff. The slot canyon itself is difficult to travel through, requiring stemming. Not all will be capable. Eventually you will get to an impasse and will have to return. Return the way you came, or backtrack just a little and find your way up and over to Tunnel Slot.

#### **To Tunnel Slot Canyon**

Getting to Tunnel Slot from here requires some route finding and a map, but the journey is worth it. You may be able to walk through Tunnel Slot, or it may require swimming. After passing

through you will find yourself back in Harris Wash. Walk upstream/right/east and find Halfway Hollow (0.6 miles).

## **Hazards**

### Heat

Most of this hike is open and exposed to the sun with few options for shade. Neither Halfway Hollow nor Harris Wash has surface water, and you may not want to cool off in what water may be in Zebra or Tunnel.

### Flash floods – Check with the visitor center for the daily flash flood rating

While flash floods are an obvious danger in slot canyons, these can be relatively safe canyons to explore despite possible flash flood danger due to how short they are. Just pay attention to the weather upstream of the slots as you approach! Harris Wash, which you will cross to get to Zebra or Tunnel can flood very big and last for a long time. Harris has a very long drainage and can flood from storms a long way away.

## **Regulations and considerations**

### Human waste disposal

Catholes are appropriate along this route.

Dogs are allowed but not recommended. Once in the tight part of Zebra they will not be able to follow you.

### Along the trail

There are no trash facilities here so please pack it out of the campground. No collecting of any object other than trash is allowed. Do not build cairns. Bikes are not allowed off road in GSENM. It is suggested but not required to stay on the trail, just be considerate of the biological soil crust!

### Camping and fires

This is not a common place to start a backpack trip, but overnight camping permits can be acquired at the visitor center. No fires are allowed in the canyons. This includes Halfway Hollow, Harris Wash and Zebra Canyon. If having a fire elsewhere, be aware of any active fire restrictions.

### Area restrictions

No bolting is allowed, not even for canyoneers.

## **Amenities**

There are no bathrooms, drinking water or trash facilities at the trailhead. The nearest bathrooms would be in Escalante or, further down Hole in the Rock Road, at Devils Garden 4 miles away. Escalante has a small grocery store (closed Sundays) and Boulder only has a nice convenience store. For medical issues Escalante has a clinic (Kazan Memorial Clinic, open M 9a-8p, Tu-F 9a-5p, closed Sat-Sun) and the nearest hospital is in Panquitch (Garfield Memorial Hospital, 200 N 400 E). For search and rescue and non-emergency evacuations call the Garfield County Sheriff's Office: 435-676-2678. For emergencies call 911 or hit the SOS button on your inReach.

## **Geology**

As you hike down Halfway Hollow, Navajo Sandstone with its beautifully cross bedded walls and domes will rise above you. Once in Harris Wash you may notice a surprising diversity of rocks, being washed down by flood after flood from as far away as Canaan Peak. In Zebra canyon you can find Moqui marbles eroding out of the sandstone, and nearby you may find some on the loose.

### Cross bedding

This is the angled lines in the sandstone and was created when the sandstone was still a giant sand dune field. These lines show how the dunes were formed.

### Slot Canyons

Purist would say slot canyons have to be so narrow you cannot walk normally through them, instead they require walking sideways or contorting through them, but generally they are very narrow canyons. They are formed over millions of years where water rushes through exposed bedrock. Sandstone and limestone are the most prone to forming this type of canyon because of how they are eroded chemically and physically by water. Add to this the flash floods caused by monsoons over the desert and this is one recipe for slot canyons.

### Moqui marbles

Moqui is a word for prehistoric Native Americans used in the American southwest, which has nothing to do with this phenomenon, but they do have a resemblance to marbles. They are brownish-black, spheres or conjoined spheres or flying saucer shaped, often smooth and range in size from a pea to several inches in diameter. Moqui marbles, along with some other strange features, are iron concretions, a concentration of iron within the sandstone which resists erosion. As the sandstone wears away, the harder iron concretions emerge relatively cleanly from its substrate. Just how these form is up for debate. One theory is that they when the sand dunes were still mobile and being washed by the waves of temporary lakes, a froth of iron formed, subsequently forming plates and marbles. Another theory is that they formed underground when iron minerals precipitated from flowing groundwater. Collecting of Moqui marbles on GSENM is prohibited.

The Navajo Sandstone (about 185 million years old) was formed from a giant sand dune field that is the largest in the known history of the earth, much larger than the Sahara Desert. This sandstone formation is found from Arizona to Wyoming. Sand dunes piled on a shallow water table as the water table rose. Frequently the sand dunes would blow away down to the water table creating a break in the cross bedding. Imagine ridges of wandering dunes on a damp surface. Within the Navajo there are lenses of limestone formed by oases and ponds. Lenses are sections with limited width and thicker in the middle than the edges. The colors of the Navajo are formed primarily by iron in different forms, and when it is white, that is from Page Sandstone and Carmel Formation (about 175 million years old)

Between these formations and the Navajo Sandstone there is an unconformity of several million years, a gap in geologic record caused by a period of erosion. Above the Navajo Sandstone is shifting mix of the members of the Page Sandstone and Carmel Formation (member being a specific type of rock or deposition that extends for only part of the larger formation). At the time, the shallow Carmel Sea was transgressing and receding, forming deposits of limestone, sandstone, gypsum, etc. In the Escalante Canyons, typically the Harris Wash Member of the

Page Sandstone sits on the Navajo but is almost indistinguishable except at the contact there may be bits of angular chert.

## **Flora**

This hike will take you through the high desert of the Colorado Plateau. In the washes you'll see sparse riparian vegetation, but there isn't enough water here for the full effect.

### Salt desert scrub and pinyon-juniper woodland

Here you'll find a high desert community of plants capable of withstanding the fierce baking sun of the summer as well as freezing temperatures in winter. This region gets about 11 inches of rain per year, and supports pinyon and juniper trees as well as big sage and sand sage, all woody plants. Prickly pear (a group of species that all look similar) and claret cup are the most common cacti found here. Narrow leaf yucca, another succulent, is related to agave. Common grasses include needle and thread grass, Indian rice grass, cheat grass and blue grama. In this high desert, flowers typically bloom from April to June, potentially with a second showing following monsoons. Some common flowers are globe mallow, penstemon, evening primrose and hoary aster.

### Riparian

Riparian areas are defined by a soil type and plant community that is strongly influence by the presence of water. Here you'll see coyote willow, tamarisk and rushes that indicate a steady underground supply of water.

## **Fauna**

Mammals, fish, reptiles, birds and even amphibians all make their home in the desert and the streams that course through it. There are many species of birds in GSENM, some of the more notable ones include turkey vultures, ravens and pinyon jays. Mammals that roam these parts include coyotes, foxes, bob cats, mountain lions, badgers, mule deer, bighorn sheep and many species of mice. Some insects you may encounter are the creepy Jerusalem crickets and sand trap building antlions. Likely you will see collared lizards, with a black band around their neck and you may see whiptail lizards with tails up to 2.5 times as long as its body. Some poisonous animals to watch out for are rattlesnakes, scorpions, black widows, and velvet ants.

Rattlesnakes are not common and not aggressive but they will stand their ground. If they are rattling they're agitated and if they're also coiled up they're ready to strike. They can strike a distance 2/3 the length of their body. If someone is bit, request a medical helicopter evacuation immediately.

Scorpions hide under rocks during the day and come out mostly at night. Their sting is painful similar to a bee sting. No medical attention is necessary, but if it's the first time someone has been stung, watch out for anaphylaxis. Just like with bee stings some people have severe allergic reactions. If their throat starts to swell administer Benadryl and, if possible, find an EpiPen in case its necessary. Get to a clinic unless the situation resolves itself.

Female black widow spiders have a distinct red hourglass shape on the back of their black body. They are not aggressive and build very sticky webs in nook of canyon walls. Their bite may require medical attention, drive to the nearest medical facility.

Velvet ants look like fast moving ants with a brightly colored patch of hair, however these are not ants. They are wasps and should be treated as such because they do have a powerful sting.

Ravens look very similar to crows but ravens are significantly larger. Their distributions overlap but crows are very rare in GSENM. Ravens often hang out in pairs and they are scavengers so don't leave your snacks unattended!

Turkey vultures have a wingspan of up to 6 feet and do not flap their wings very much. They are expert at finding rising warm air currents and gliding in circles all day as they look for carrion.

Pinyon jays, related to blue jays, like to hang in large flocks in pinyon/juniper forests. This species of jay is endemic to the Colorado Plateau, it doesn't exist anywhere else!

Flickers are related to woodpeckers

Mountain lions, like all large predators, were hunted and poisoned almost to extinction. Today, the best place to see one is in the desert southwest; however, you will be very lucky if you do. Mountain lions range far to find prey, mostly mule deer, and kill efficiently with a bite to the back of the neck. If you do encounter a mountain lion, make sure you don't have it cornered. Make loud noises and raise your arms, fight back if necessary, and do not run away!

Bighorn sheep make their home in rugged rocky areas it would seem were impossible to navigate. They are excellent climbers and use this to their advantage to avoid predators. The males have very large horns which grow longer every year. They use these to establish dominance over other males during mating season. They charge each other at over 20 mph, the loud crack can be heard for miles. One nearly wiped out, bighorn are making a comeback.

### **Nearby attractions**

Bighorn is a nearby canyon that gives a slot canyon like feel without the difficult maneuvering.

Devil's Garden features hoodoos and fun rocks to run around on, with the convenience of a bathroom nearby.

