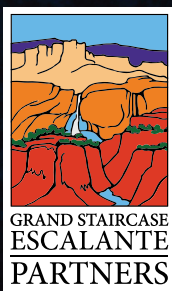




This pocket guide provides basic information about Grand Staircase-Escalante National Monument and how visitors can minimize their impact when recreating on the landscape.

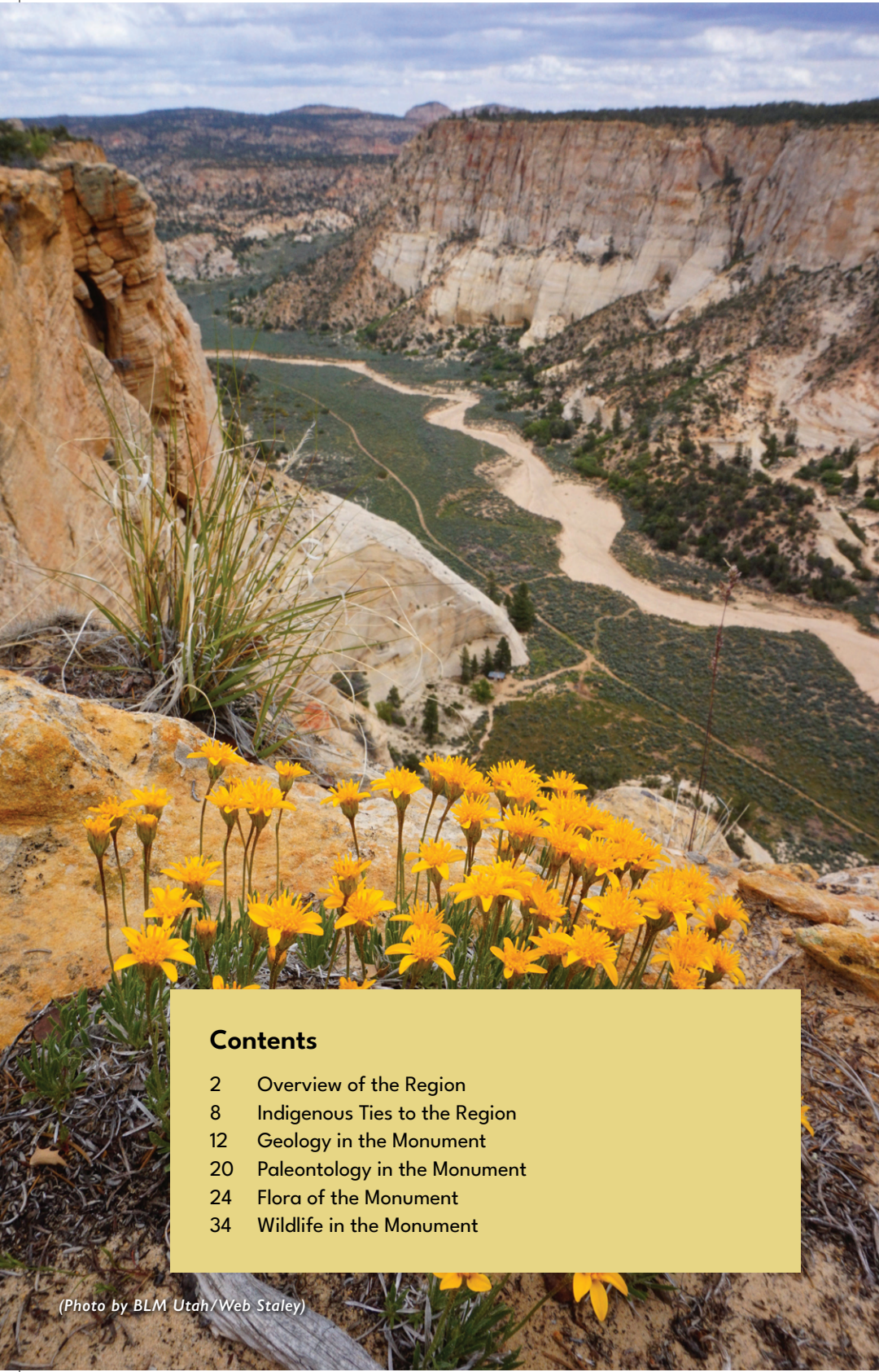
NATURALIST GUIDE

Grand Staircase- Escalante National Monument



www.gsenm.org

LIFE
UTAH
ELEVATED



Contents

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- 8 Indigenous Ties to the Region
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(Photo by BLM Utah/Web Staley)

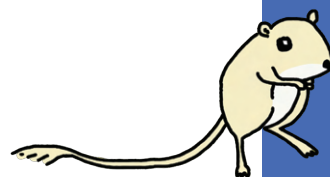


Introduction to this Guide

This guide was developed by Grand Staircase Escalante Partners (GSEP), a non-profit organization whose mission is to honor the past and safeguard the future of Grand Staircase-Escalante National Monument (GSENM) and its connected watersheds and landscapes through science, conservation, and education. You can learn more about GSEP at gsenm.org. This pocket guide provides some basic information about Grand Staircase-Escalante National Monument and how visitors can minimize their impact when recreating on the landscape. This is not a comprehensive guide to GSENM or about impact minimizing behaviors.

Many organizations have guidelines when informing visitors about reducing their impact on the landscape. The behaviors outlined in this guide are influenced by other visitation guidelines and may be familiar to many of the visitors of GSENM. Grand Staircase Escalante Partners has created an “Honoring the Land Ethic” that provides reasoning behind why we ask visitors to behave and recreate in a certain way while in the Monument and on public lands. GSEP created its own land ethic instead of relying on others because the framing of many traditional guidelines are limited in their scope and because Grand Staircase-Escalante National Monument is a unique place that requires specific ethics around visitation.

To find more information about the Monument and current conditions of trails and roads, you can visit the various Bureau of Land Management Visitor Centers located around the Monument or visit blm.gov. You can also learn more about reducing your impacts when recreating on public lands and seven Leave No Trace Principles at The Leave No Trace Center for Outdoor Ethics’ website at Int.org. You can also learn more about visiting archaeological sites appropriately, Visit With Respect, and the work done by the nonprofit Bears Ears Partnership at <https://bearsbearpartnership.org>.





Grand Staircase-Escalante. (Photo by Patrick Hendry on Unsplash)

GRAND STAIRCASE- ESCALANTE NATIONAL MONUMENT

Overview of the Region

Grand Staircase-Escalante National Monument (GSENM) is a 1.9-million-acre national monument in Southwest Utah that is managed by the Bureau of Land Management (BLM). GSENM was designated as a national monument by President Bill Clinton in 1996 using the Antiquities Act. This area was designated as a national monument because it “presents exemplary opportunities for geologists, paleontologists, archaeologists, historians, and biologists” (Clinton, Proclamation 6920). The Monument encompasses a vast, undeveloped expanse of public land filled with deep canyons, rocky mesas, winding rivers, and high plateaus. These areas include incredible biodiversity, important cultural history, inspiring geologic features, an extensive fossil record, and endless opportunities for scientific and personal exploration.



Keep An Eye On The Sky!

The most deadly thing in the monument is exposure to extreme temperatures. Summer temperatures can rise above 100° Fahrenheit and in the winter can drop below 0°. To recreate safely, pack layers, wear sun protection, and drink plenty of water. During the summer, it is recommended to drink 1 gallon of water per person per day.

Another hazard that is unique to the area is flash floods. Flash floods occur when rainfall from heavy rainstorms causes streams, rivers, and dry washes to fill with water. These flood waters often contain debris. Entering them can be very dangerous. In areas such as slot canyons, flash flood waters can rise so rapidly that they become deadly.





Regulations:

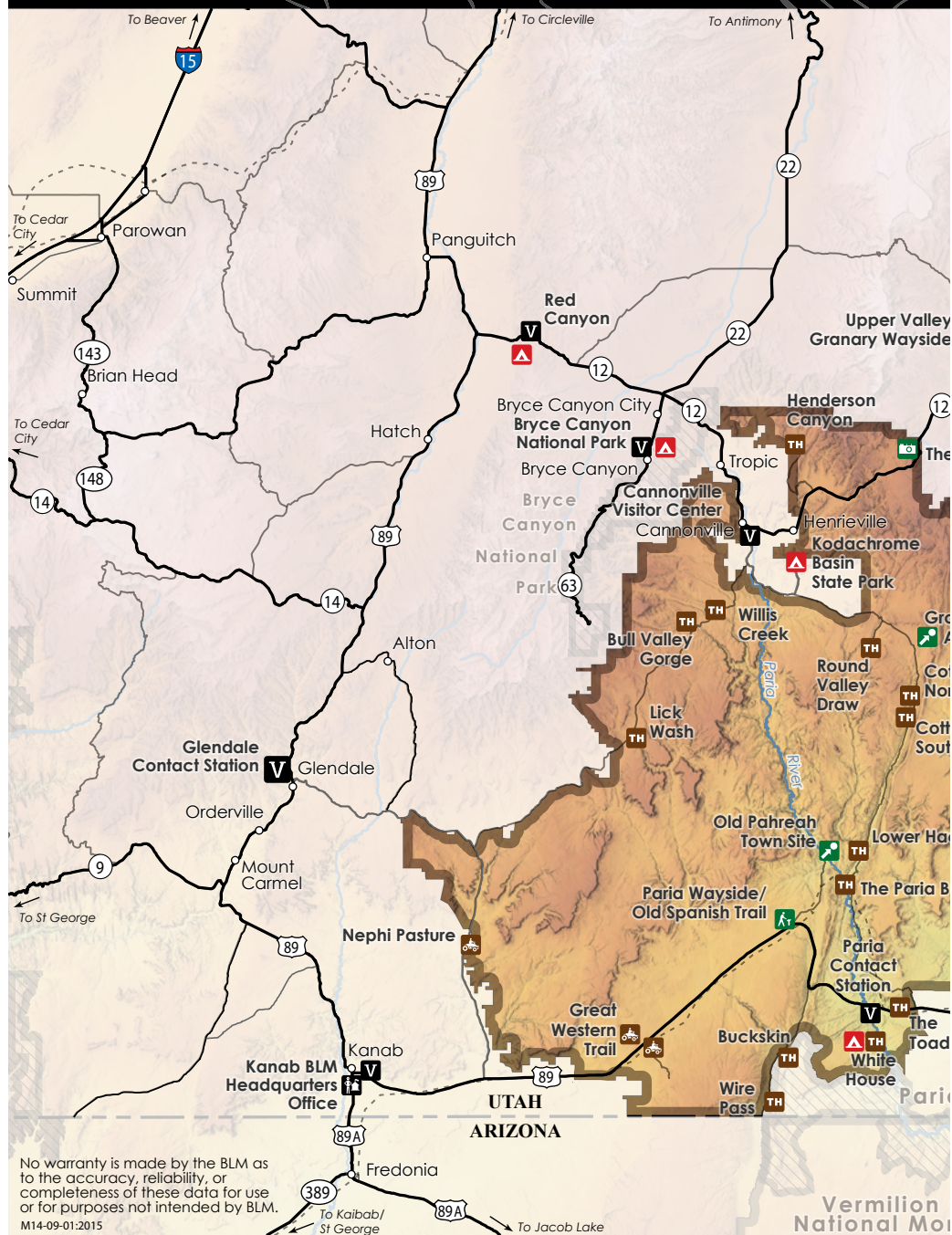
- Collecting is not allowed in the Monument. All things (rocks, fossils, plants, bones, signs, wood, etc.) must be left where they are found and in the condition they were found in.
- Backcountry overnight users must have a permit. These can be acquired at any of the BLM Visitor Centers around the monument or at many of the trailheads.
- Groups are limited to a certain size in all areas of the Monument. In most areas, one group cannot exceed 12 individuals.
- Fires are not permitted in Glen Canyon National Recreation Area and are strongly discouraged throughout the Monument. Make sure to check if there are fire restrictions in effect during your visit.
- Bathrooms on the monument are limited. There are outhouses available at Lower Calf Creek Falls Trailhead and at Upper and Lower Dry Fork Narrows Trailheads and at BLM Visitor Centers.
- All garbage must be PACKED OUT. There is no garbage disposal available in the Monument.

IF THERE IS A
GOOD CHANCE
OF RAIN, AVOID
TIGHT CANYONS
& TRICKY ROADS

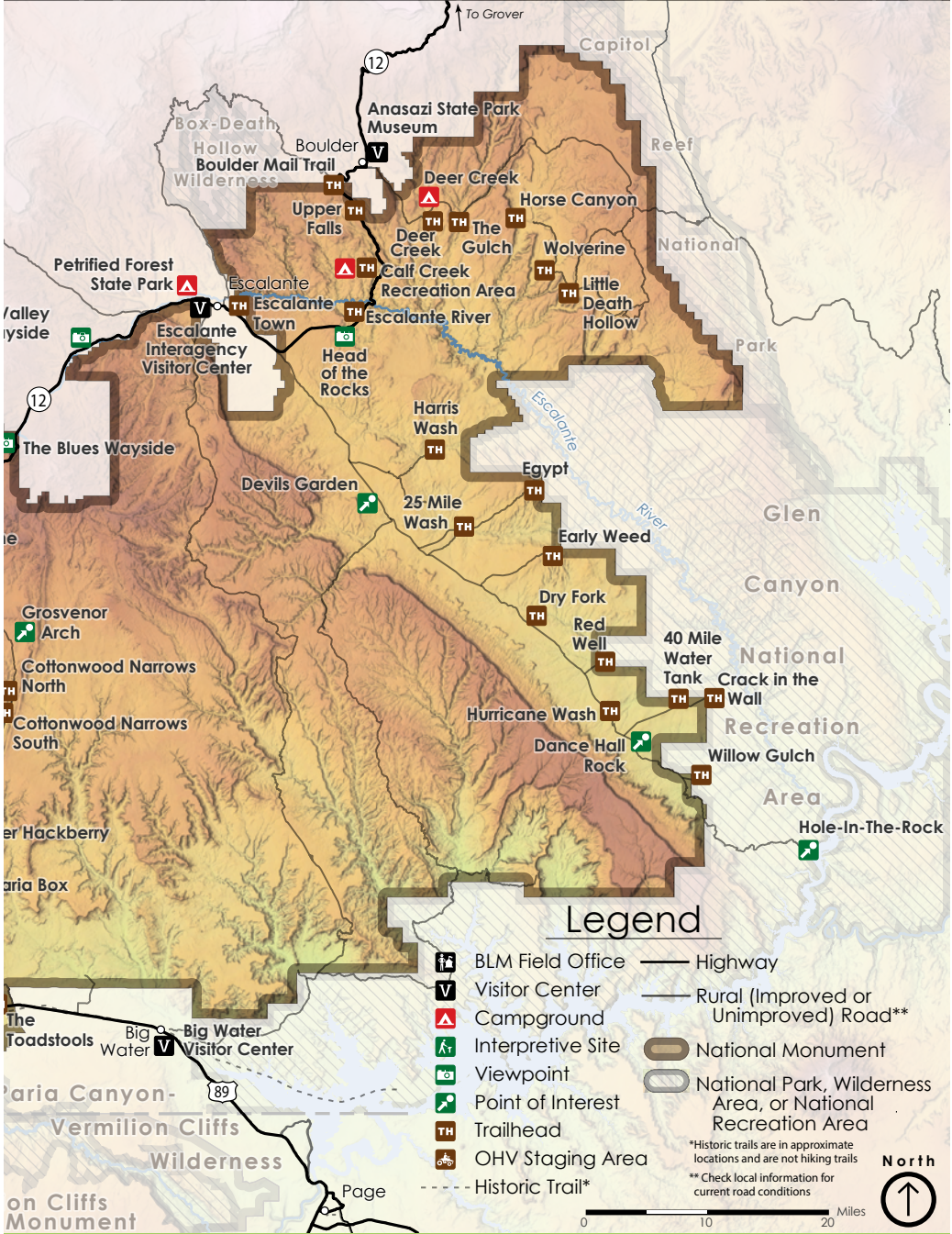


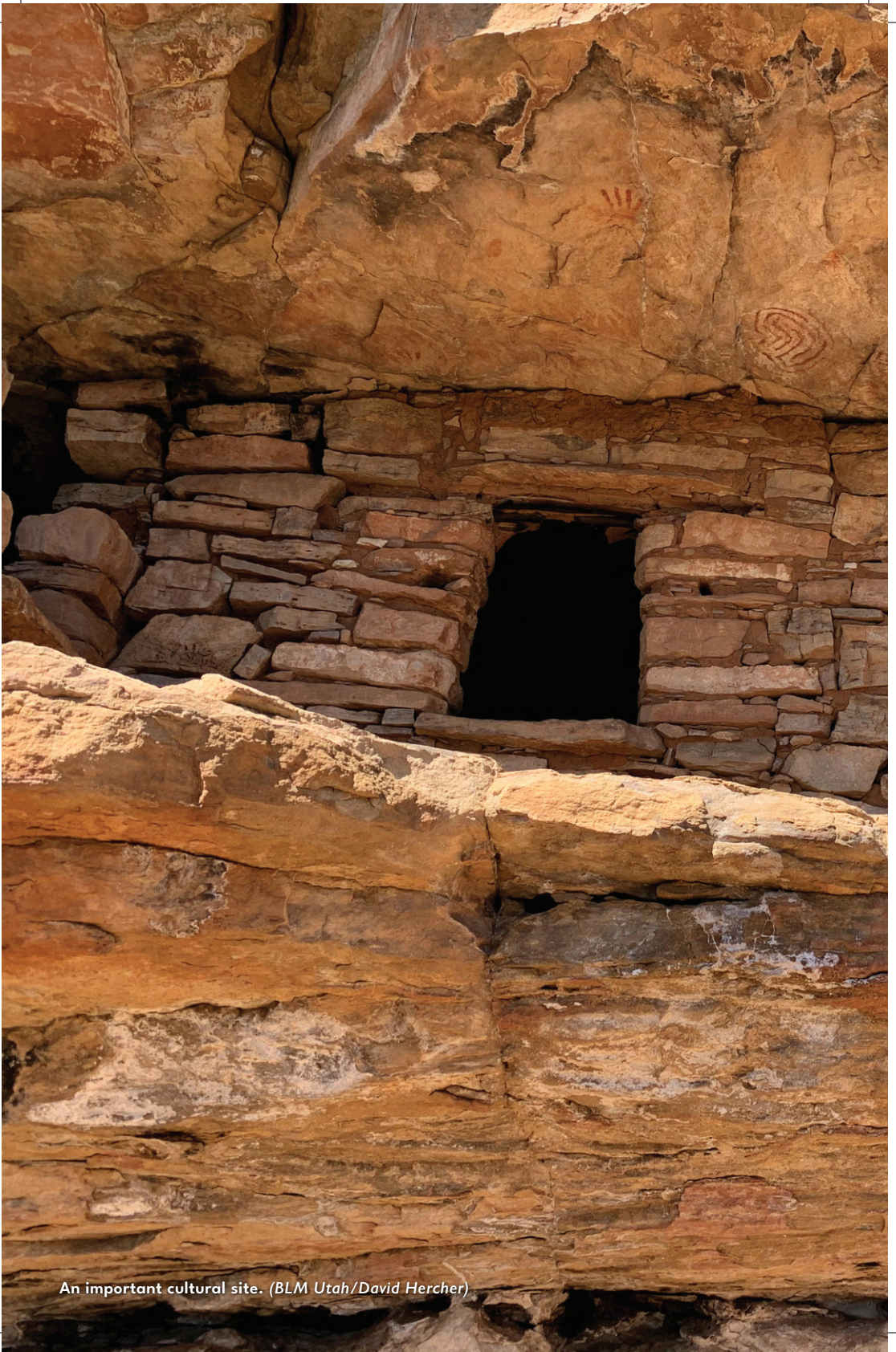
NATIONAL
CONSERVATION
LANDS

Grand Staircase-Escalante National Monument



Utah





An important cultural site. (BLM Utah/David Hercher)

Indigenous Ties to the Region

Indigenous Peoples have lived on this landscape since time immemorial. Grand Staircase-Escalante National Monument is part of the ancestral homelands for many tribes who were the original inhabitants of the region and who were forcibly removed from the landscape. Though currently living beyond the Grand Staircase-Escalante region, Hopi, Ashiwi/Zuni, Acoma, and Hemes/Jemez Pueblo people trace their history to these lands, where multiple cultural groups lived and interacted for centuries. Nuwuvi/Southern Paiute oral traditions say that Paiute people have always been here, and Paiute bands were residing here when various colonizing settlers entered the area. As part of a connected cultural landscape, Diné/Navajo and Noochew/Ute people, too, claim ties to areas within the Grand Staircase-Escalante region. And so it is that these Indigenous nations have sustained connections to these ancestral lands in myriad ways and will continue to carry those bonds into the future.

Grand Staircase-Escalante National Monument contains countless cultural sites including rock imagery such as petroglyphs (pecked into the rock) and pictographs (painted onto the rock), cliff dwellings and other habitation sites, cultivation sites, and hunting camps. Cultural objects such as pottery, tools, and baskets are also present on the Monument, many of which are between 800 and 12,000 years old. Archaeological sites are very fragile and it is important for visitors to follow the guidelines outlined below when at a known or suspected site. These lands are important to Native tribes that have spiritual and cultural connections to these areas. Ancestral lands are living landscapes for Native communities; and showing respect for archaeological sites honors these connections. Archaeological sites are just one piece of understanding Native connections to this place — tribes' articulations of their own history are also important pieces of understanding how people and places have been connected through time.

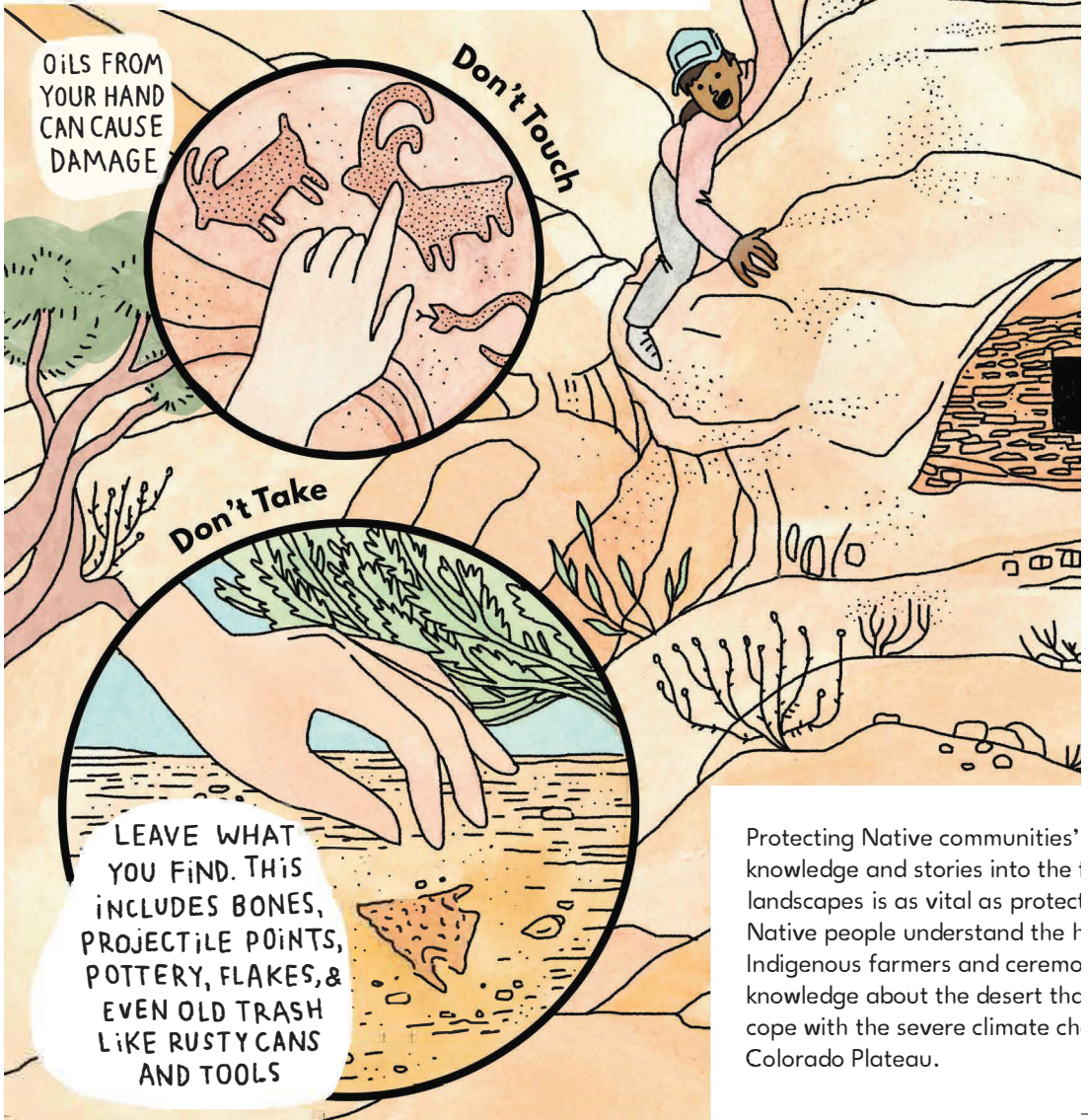


Visiting With Respect

The monument contains several cultural sites with rock imagery such as petroglyphs (pecked into the rock) and pictographs (painted onto the rock), cliff dwellings and other habitation sites, cultivation sites, and hunting camps. Cultural objects such as pottery, tools, and baskets are also present on the monument, many of which are between 800 and 12,000 years old. Archaeological sites are fragile. These lands are important to Native tribes that have spiritual and cultural connections to these areas. Ancestral lands are living landscapes for Native communities. Showing respect for archaeological sites honors these connections.

Don't Climb

**NEVER CLIMB
OR IN STRUCTURES
LIKE CLIFF DWELLINGS**



Protecting Native communities' knowledge and stories into the future landscapes is as vital as protecting the land. Native people understand the importance of the land. Indigenous farmers and ceremonial knowledge about the desert they cope with the severe climate change on the Colorado Plateau.

Don't Climb

CLIMB ON
STRUCTURES
OF DWELLINGS

Don't Vandalize

"ILLEGAL"
UNCOOP
"DISRESPECTFUL"

Don't Share

SHARING SITE
LOCATIONS ONLINE CAN
PUT THEM AT RISK. NEVER
SHARE GPS POINTS,
PHOTOS WITH LOCATION
DATA, OR IMAGES THAT
CONTAIN CONTEXT CLUES
THAT COULD GIVE
AWAY THEIR LOCATION

ties' ability to carry their
the future and to access these
otecting the land itself. Modern
the healing power of the land.
remonial leaders hold
t that may prove crucial as we
e change predicted for the



Paria Rimrocks. (© J. Philipp Krone)

Geology in the Monument

Why is this Monument named “Grand Staircase-Escalante”? It’s because of the amazing geologic features contained within its boundaries! GSENM is filled with colorful canyons, plateaus, mesas, and cliffs which range in age from the Permian to the Cretaceous, covering nearly 200 million years of Earth’s history. The Monument can be split into three geologic sections: The Grand Staircase, The Kaiparowits Plateau, and The Escalante Canyons.

The western-most section of the Monument is “The Grand Staircase,” which consists of a series of cliffs and benches that resemble huge, geologic steps. These steps start at nearly 10,000 feet above sea level and descend to around 3,000 feet above sea level. As you descend the staircase, you also travel back in geologic time with the top of the staircase containing the youngest rock (around 50 million years old) and the bottom of the staircase containing the oldest rock (around 240 million years old). The youngest layer of rock and also the top of the staircase, which is primarily west and north of the Monument, is composed of the Pink Cliffs which make up the beautiful formations of Bryce Canyon National Park. The next step down is the Gray Cliffs, which are formed by hard Cretaceous sandstone and contain a fantastic paleontological record. Next is the White Cliffs, which is composed of large white sandstone cliffs, called Navajo Sandstone. The next layer is the Vermillion Cliffs, which makes up the bright red sandstone that is a staple feature throughout the Monument. The lowest and also southernmost layer is the Chocolate Cliffs, which is not predominantly featured in GSENM, but is exposed near the town of Fredonia in Northern Arizona.

In the central part of the Monument is the Kaiparowits Plateau, which is primarily composed of Cretaceous rocks where several species of dinosaurs have been discovered. The eastern section of the Monument is called the Escalante Canyons section. This area has been sculpted over the millennia by the Escalante River and its tributaries, leaving behind deep canyons and fields of “slickrock” sandstone. The Escalante Canyons Region of GSENM can be split up into the canyons and benchlands surrounding the Escalante River and the Circle Cliffs uplift which is a large doubly plunging anticline made up of Wingate Sandstone.



Is My Campfire Low Impact?

It is best to not have a campfire in Grand Staircase-Escalante National Monument if you can avoid it, but if you do decide to have one in an area that is allowed, there are a few steps you can take to make it as low impact as possible.

- Do not break off branches from alive. Large dead junipers play ecosystem structure and the dead ones are starting to disappear due to fire in the backcountry, collect wood through the backcountry, collect wood through the backcountry, collect wood through the backcountry so that you do not deplete wood around your campsite.

- If you have to collect firewood, only collect pieces that are smaller than an adult wrist and are dead and scattered on the ground. Burning wood this size ensures that the wood burns down to ash.

- Bring your own campfire wood or purchase it from a town near the Monument. Do your best to not collect firewood in the Monument.

- Consider camping at a campground with established fire rings, like those available at Calf Creek Falls Campground, Deer Creek Campground, commercial campgrounds within one of the towns that surround the Monument, or in one of the many campgrounds on the Dixie National Forest.

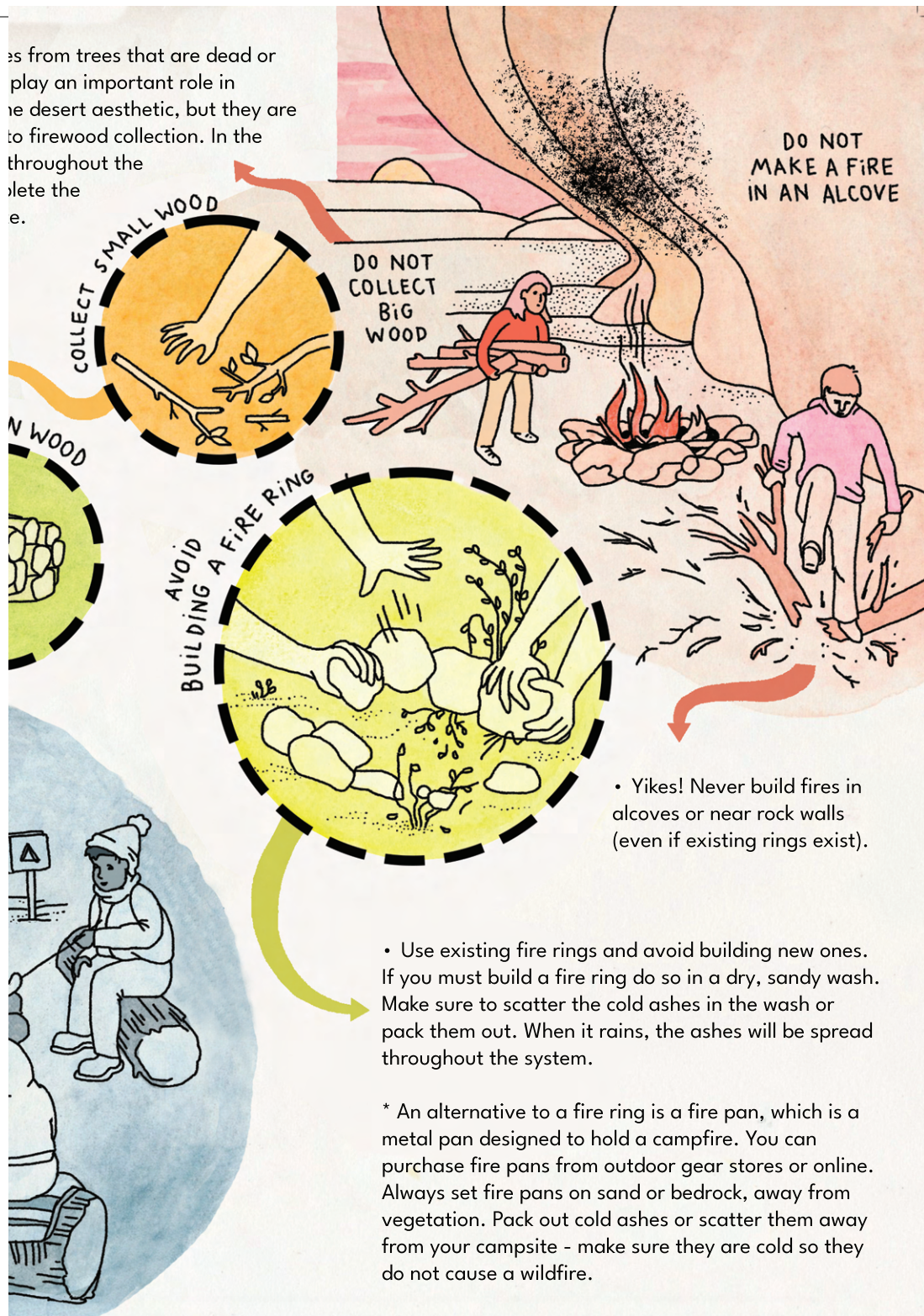
- It is best to not have a campfire if you can avoid it! This is the lowest impact option.



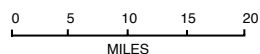
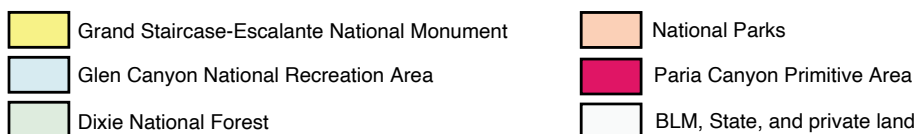
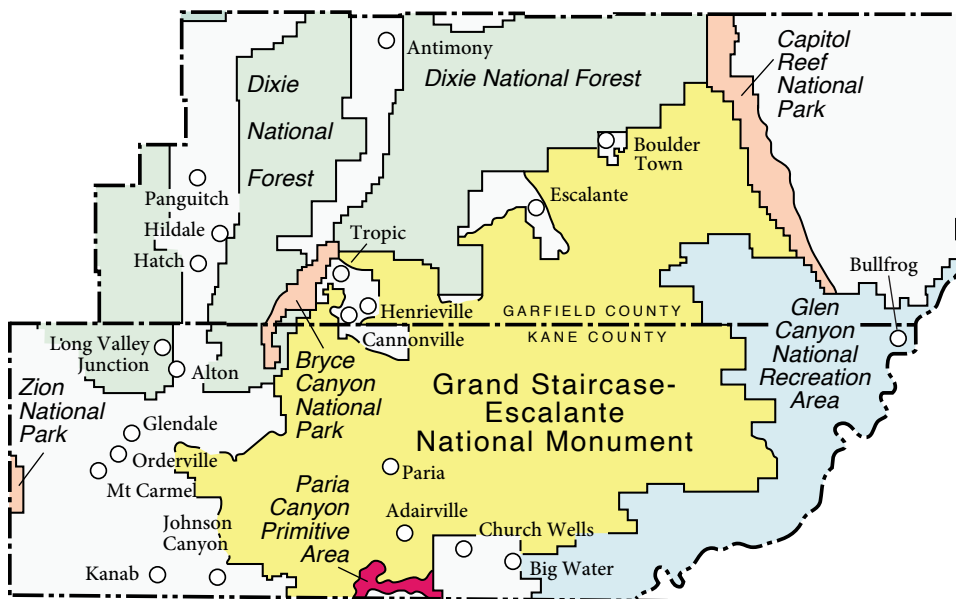
CAMP IN THE CAMPGROUND



es from trees that are dead or
play an important role in
ne desert aesthetic, but they are
to firewood collection. In the
throughout the
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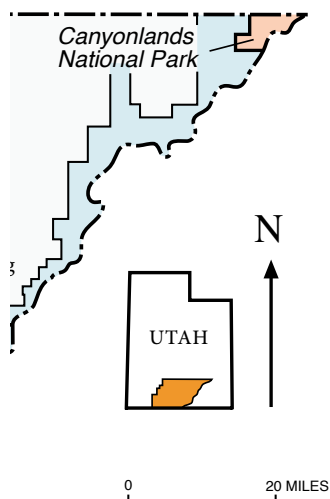


WORSE



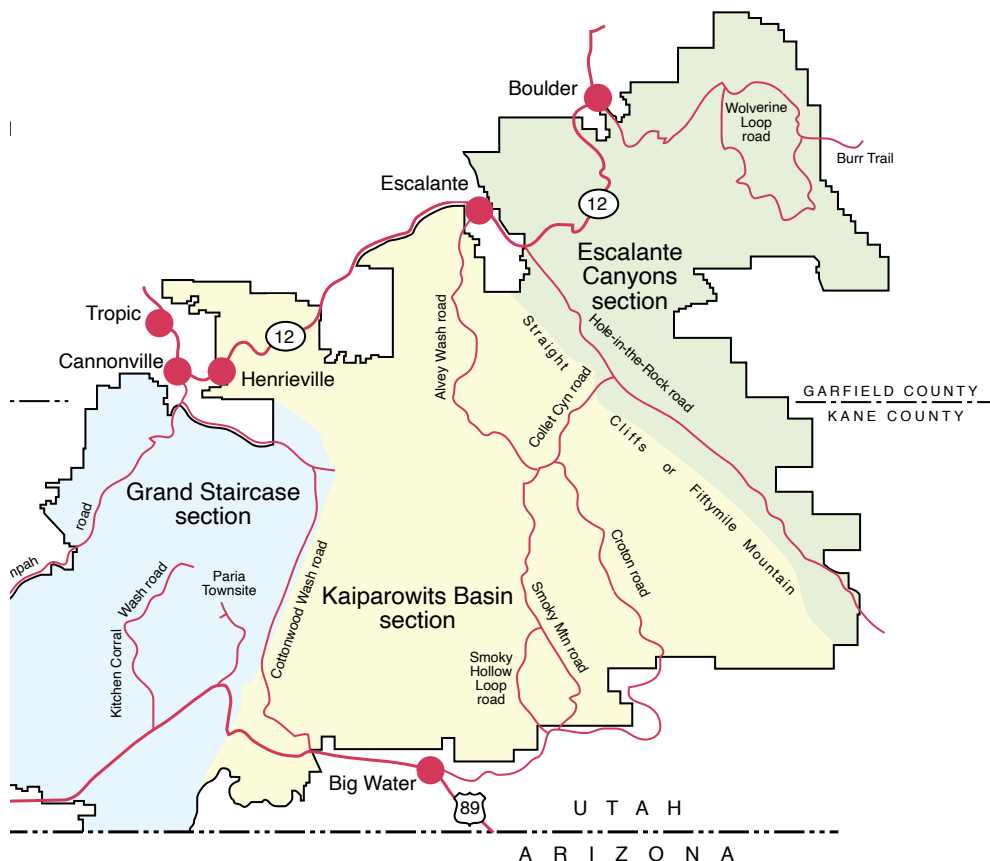
Map showing the locations of the classic geologic sites within Grand Staircase-Escalante National Monument in southern Utah. The Grand Staircase section is shown in blue, the Kaiparowits Basin section in yellow, and the Escalante Canyons section in green.





Index map for Grand Staircase-Escalante National Monument in Garfield and Kane Counties, Utah. The 1.9-million-acre monument is encircled by national parks, a national recreation area, a primitive area, and a national forest. Four state parks, Coral Pink Sand Dunes, Kodachrome, Escalante Petrified Forest, and Anasazi Indian Village State Parks are also in the area, west of Kanab, near Cannonville, near Escalante, and near Boulder Town, respectively.

○ Towns and settlements





Sheltered from wind and rain, a seedling takes root in mature biological soil crust.
(NPS/Neal Herbert)

Living Carpets: Biological Soil Crust

The amazing geology of GSENM provides habitat structure for a variety of ecosystems and even though the landscape is dominated by rock, the desert is fragile! Thankfully, the rocks and washes in this landscape, along with designated trails and roads, provides visitors with ways to sustainably navigate the desert.

Why do we want to minimize our impacts when traveling across GSENM? The desert is alive and not well adapted to high volumes of people traveling across it. For example, while on the Monument in lower-impact areas, you may notice that the ground is covered in a dark “crust.” This crust is called biological soil crust, which is created by microscopic organisms such as algae, cyanobacteria, and fungi. The bacteria within the soil release a gelatinous material that binds soil particles together in a dense matrix, making a hardened surface layer made up of living organisms and inorganic soil matter. Cryptobiotic soil crust plays an important role in both preventing erosion and supporting water absorption in a place where water is often scarce. This “crust” of cryptobiotic soil can be damaged easily by people and pets traveling across it. Once crushed, the crust can take anywhere from a few years to decades to grow back. Until recovery, the soils in the impacted area can be damaged by accelerated erosion and nutrient loss.



A super close look at a community of biological soil crusts including scale lichens, crustose lichens, mosses, and cyanobacteria. (USGS/Alexandria Quinlan)



Stick to existing roads and trails. This narrow trail through a pristine area of biological soil crusts leads to research plots monitored by scientists since the 1990s. (USGS/Erika Geiger, Ph.D.)



Preparing fossils for transport. (© Grand Staircase-Escalante Partners)

Paleontology in the Monument

The sedimentary rocks of Grand Staircase-Escalante National Monument (GSENM) reflect ever changing environments as a result of tectonic shifts, sea level fluctuations and changing global climate. These rocks range in age from the middle Permian (260 million years ago) to the Late Cretaceous (70 million years ago). Instead of a desert filled with cacti and canyons, the area that we now know as Grand Staircase-Escalante National Monument looked much different, particularly during the latter part of the Age of the Dinosaurs (Mesozoic Era). It is these rocks, chock full of important fossils, that have been called out for protection in the Presidential Proclamation that established the Grand Staircase-Escalante National Monument. During the Late Cretaceous, a seaway slowly encroached onto the western interior of the North American continent, dividing it into two subcontinents, Laramidia to the west and Appalachia to the east. This seaway reached its maximum extent at around 95 million years ago fully inundating the Colorado Plateau, including the Grand Staircase region. Fossils of marine creatures such as plesiosaurs, fish, sharks, and invertebrates, including ammonites, gastropods and bivalves, are common in the sedimentary deposits from that era.

The seaway slowly shrank, and the shoreline retreated to the east. The ensuing sedimentary deposits capture one of the most continuous and detailed Late Cretaceous fossil records in the world, spanning almost 20 million years. More than 25 unique species of dinosaurs have been found in the Monument along with several species of never-before-seen subtropical and tropical plants, mammals, turtles, and crocodilians.

Dinosaurs found in GSENM include several species of ceratopsians, tyrannosaurs, and duck-billed dinosaurs, as well as troodontids, oviraptors and ankylosaurs. Often preserved in exquisite detail (including skin impressions), many of the discoveries have challenged long-standing assumptions about dinosaur evolution and behavior. Most recently, findings at a tyrannosaur mass mortality site in Grand Staircase suggest that tyrannosaurs may have lived in family groups.

The sedimentary rocks of the Kaiparowits Plateau region truly represent a unique ecosystem unknown anywhere else in North America during that time. They have quickly become a highly important paleontological resource and will continue to yield remarkable discoveries for generations to come.



The Desert is Fragile

The amazing geology of the monument provides habitat structure for a variety of ecosystems. Even though the landscape is dominated by rock, the desert is fragile!

In addition to cryptobiotic soil, desert plants, which are important for erosion control, wildlife habitat and food, and aesthetics can be damaged by those not traveling on durable surfaces.

When people go off designat they often leave tracks which to follow their path and crea

Thankfully, the durable rocks landscape, along with the de roads, provide visitors with v navigate the desert with less landscape.

Minimal Damage Checklist - below can you check?

☐ I DIDN'T BUILD ANY CAIRNS

☐ I PACKED OUT ALL MY TRASH

☐ I CAMPED AT LEAST 200' AWAY FROM WA

I SET UP CAMP IN
☐ EXISTING CAMPSITE OR DISTURBED ARE

I SET UP MY TENT ON A
☐ RESILIENT SURFACE LIKE SAND, ROCK, OR GRAVEL.

* FOR BACKCOUNTRY CAMPERS *

☐ I MOVED CAMP EACH NIGHT AND DID NOT CREATE SOCIAL TRAILS



ignated trails and roads,
which can encourage others
create more damage.

rocks and washes in this
ne designated trails and
with ways in which to
a less impact to the

ist - How many of the boxes





Claret Cup cactus. (BLM Utah/Bob Stevenson)

Flora in the Monument

Grand Staircase-Escalante National Monument contains multiple ecosystems including high desert shrubland, riparian corridors, stands of pinyon and juniper forests, and hanging gardens. Each of these ecosystems contains a large variety of native plants, some of which have amazing adaptations for surviving in the desert! The following pages show some of the plants you are likely to see when visiting the Monument and other desert environments on the Colorado Plateau.



Trees



An ancient pinyon pine and cones. (NPS photo • BLM Utah/James & Jenny Tarpley)

Pinyon Pine (*Pinus edulis*)

CHARACTERISTICS The pinyon pine is part of the pine family and has ever-green needles, two to four centimeters long, that grow in bundles of two. This tree will sometimes look like a shrub and be short and bushy, but it can also grow up to 40 feet tall with large branches.

BACKGROUND Pinyons produce cones to spread their seeds. These tasty “pine nuts” are edible and an important food source for people and animals such as the Pinyon Jay, which relies on the Pinyon pine for its main food source. The pinyon pine, in turn, relies on the Pinyon Jay to spread its seeds far and wide.

ENVIRONMENT You can often find this tree growing alongside Utah juniper in Pinyon-Juniper woodlands throughout the Monument.



Mature juniper tree and “berries,” which are actually modified cones. (BLM/Cindy Gallo • NPS)

Utah Juniper (*Juniperus osteosperma*)

CHARACTERISTICS Utah junipers are generally short trees that grow less than 25 feet tall and often have several twisting branches and stems. The needles grow in “whorls” around the stem, are scaled, and have a very distinct smell when pinched.

BACKGROUND While Utah junipers are fairly small trees, they have very long taproots that can grow up to 15 feet deep vertically into the soil and up to 100 feet laterally from the tree. This allows them to persist in very harsh and dry conditions and to grow very old. Utah junipers can live as long as 650 years and even very small junipers, like those that are only 6 inches tall, can be up to 50 years old.

ENVIRONMENT You can often find this tree growing alongside pinyon pine in pinyon-juniper woodlands throughout the Monument. There are several other species of juniper that grow throughout the Monument and the Western United States, so you may also find trees that are similar to the Utah juniper, but do not match this description exactly.

Trees



Mature Fremont cottonwood, leaves and fruit. (BLM/James & Jenny Tarpley • SEINet/Max Licher)

Fremont Cottonwood (*Populus fremontii*)

CHARACTERISTICS Fremont cottonwoods are deciduous trees with bright green, heart shaped leaves that flutter in the wind. Adults range in size from 35 to 100 feet tall and have deeply furrowed and cracked whitish bark. The fruits (which bloom in March and April) hang on a silky hair, which when clustered together, looks like patches of cotton, giving the tree its name.

BACKGROUND The Fremont cottonwood is a riparian species, meaning that it grows on stream and river banks. It serves a multitude of purposes within riparian ecosystems including ecological diversity, bank and sediment stabilization, maintenance of channel morphology, water quality improvement, ground-water recharge, flood abatement, and fish and wildlife habitat.

ENVIRONMENT Fremont cottonwoods grow throughout the Monument along seeps, springs, streams, wetlands, and along the Escalante and Paria Rivers.

Shrubs

Three Leaf Sumac (*Rhus trilobata*)

CHARACTERISTICS Three leaf sumac is a shrub that can grow 1 to 7 feet tall, forming rounded and dense thickets. It has deciduous leaves that have three leaflets that are coarsely toothed and shiny. Sumac has small yellow to whitish flowers that grow in dense clusters in the spring that when pinched smells like lemonade. These flowers turn into small, red fruits that are sparsely hairy and shiny.



Three leaf summac. (SEINet/Max Licher)

BACKGROUND Three leaf sumac provides some browse for deer, elk, and pronghorn and the fruits, which persist through fall and winter, provide a food for birds and small mammals. It also may form dense thickets that provide good hiding and nesting cover for small birds and mammals.

ENVIRONMENT You can find three leaf sumac along streams, springs, and rivers throughout Grand Staircase-Escalante National Monument.

Great Basin Sagebrush

(*Artemisia tridentata* var. *tridentata*)

CHARACTERISTICS Great Basin sagebrush is a shrub with soft, blue-green leaves that have a distinctive, strong aromatic smell when pinched. They can range in size from 2 feet to as large as 10 feet.



Great Basin sagebrush. (NPS/Emily Van Ness)

BACKGROUND Great Basin sagebrush is a very important plant within Grand Staircase-Escalante National Monument. Its leaves stay on throughout the year, providing an excellent winter

Shrubs

food source for numerous species of wildlife including deer, elk, bighorn sheep, and jackrabbits. It also provides critical habitat for several species of birds, insects, reptiles, and other plants.

ENVIRONMENT You can find Great Basin sagebrush growing in well-drained, sandy soils throughout Grand Staircase-Escalante National Monument.



Coyote Willow. (SEINet/Max Licher)

Coyote Willow (*Salix exigua*)

CHARACTERISTICS Coyote willow is a shrub that has long, very narrow leaves with serrated edges. It has smooth, reddish brown bark and grows anywhere from 3 to 20 feet high.

BACKGROUND Coyote willow is a very important species in the Grand Staircase-Escalante region. It has a multitude of cultural and medicinal uses and provides important habitat and food for many wildlife species. It is a key plant in stream and river bank ecosystems and

helps maintain bank stability, good water quality, and intricate channel morphology.

ENVIRONMENT Coyote willow is a riparian plant and grows in thickets along streams, springs, rivers, and other areas that are prone to flooding. It grows throughout the Monument, especially along the Escalante River.

Desert Globe Mallow (*Sphaeralcea ambigua*)

CHARACTERISTICS Desert globe mallow is best recognized by its 5-petaled, brilliant apricot to orange colored flowers. It is usually between 20 to 40 inches tall and will grow in shrub-like clumps. It has 3-lobed, hairy, gray-green leaves.

BACKGROUND Globe mallow likes disturbed areas and is an early colonizing species, so it is a good plant to use to suppress non-native and invasive

Flowering Plants

plants. It also creates great pollinator habitat for bees and butterflies and provides forage for wildlife like desert bighorn sheep and the desert tortoise.

ENVIRONMENT Globe mallow can be found throughout the Monument, especially along roads and streams. It flowers most brilliantly in the spring, but will continue to bloom throughout the summer and fall depending on precipitation.



Desert Globe Mallow. (NPS photo)

Sacred Datura (*Datura wrightii*)

CHARACTERISTICS Sacred datura has very large, white to purplish, funnel-shaped flowers that bloom in the late afternoon and evening (it is also sometimes called “moon-flower”). It has large, dark green, toothed leaves and it grows in shrub-like clumps.

BACKGROUND Every part of this plant is highly poisonous to humans and wildlife. Brushing up against the leaves can cause a skin reaction to those with sensitive skin. It is, however, pollinated by the hawkmoth, which has a long proboscis that it uses to collect nectar from the large flowers at night.



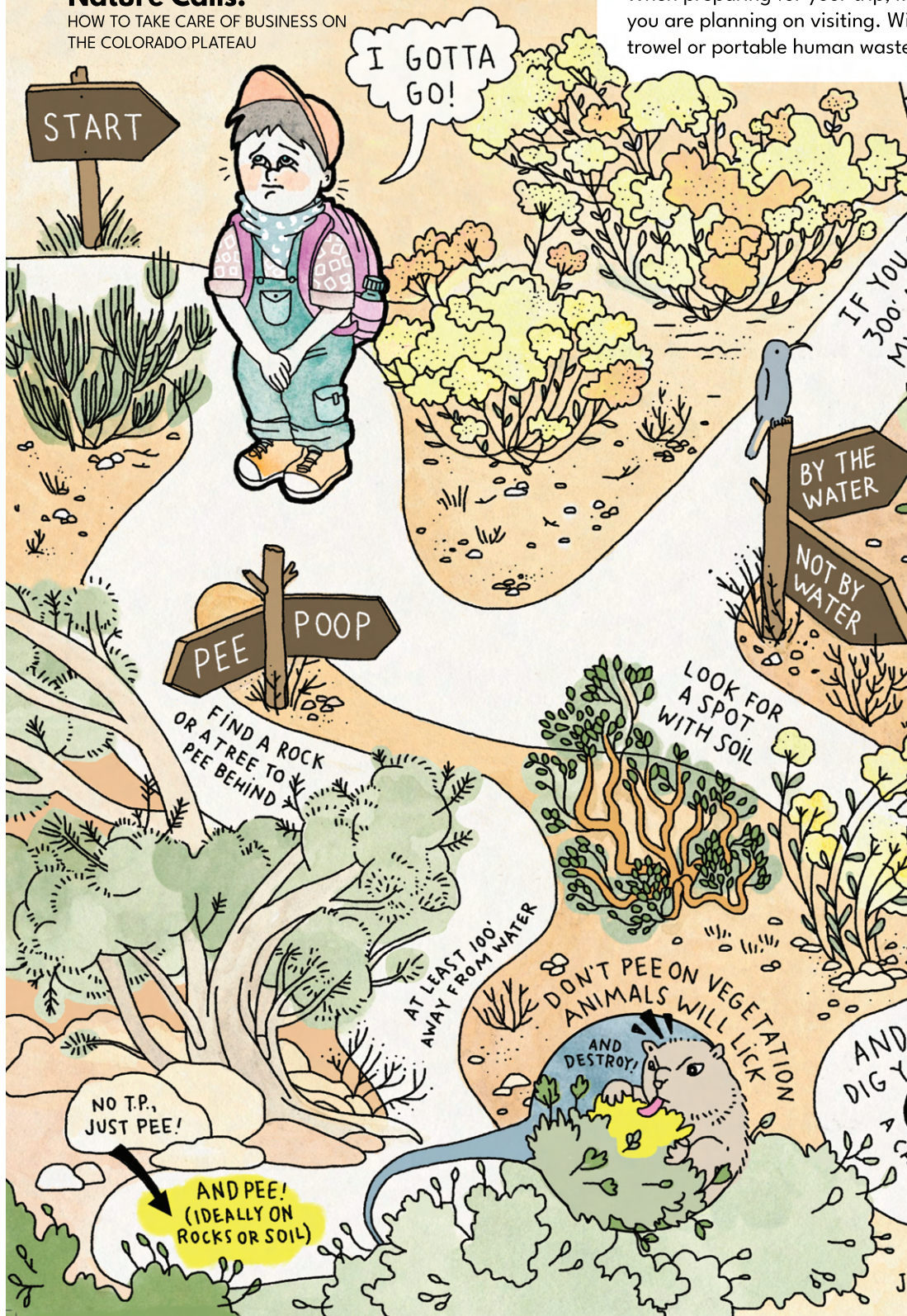
Sacred Datura. (NPS photo)

ENVIRONMENT Sacred datura can be found growing in disturbed areas along roads, the base of cliffs, and along streams and rivers throughout the Monument.

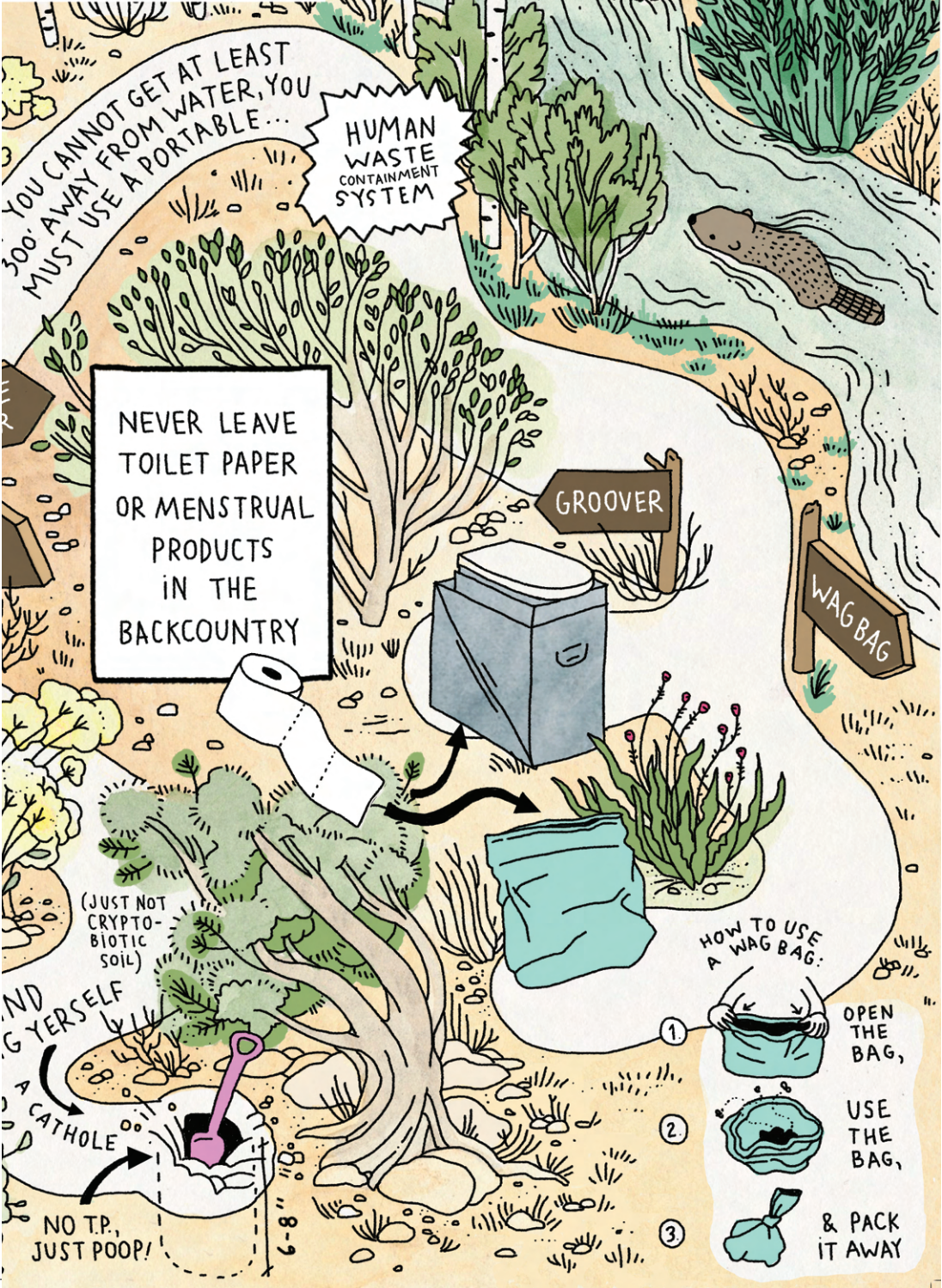
Nature Calls!

HOW TO TAKE CARE OF BUSINESS ON THE COLORADO PLATEAU

When preparing for your trip, keep in mind you are planning on visiting. Will you use a shovel or portable human waste



ip, keep in mind which areas
g. Will you need to purchase a
waste containment system?





Desert cottontail rabbit. (BLM Utah/John Kellham)

Wildlife in the Monument

While Grand Staircase-Escalante National Monument may seem like a hard place to survive, many species of wildlife thrive throughout its canyons and mesas. Here is an abbreviated list of some of the animals that live in the Monument.



Mammals

Kangaroo Rat (*Dipodomys spectabilis*)

Kangaroo rats have yellowish, brown fur and white bellies. They have huge eyes and tiny ears, with a long tail that has a white tip. They are small, weighing only about 4 oz (about the same as a granola bar), and are actually not a rat or mouse, but a heteromyidae, with its closest relative being the pocket gopher.

Kangaroo rats bounce on their back legs (giving it its namesake) and primarily eat seeds — stashing them in pouches in their cheeks. Kangaroo rats are highly adapted to the desert and will go their whole five year life span without drinking water. They gain all of the water they need to survive from eating dry seeds, collecting about a half an ounce of water from every ounce of food they consume. Their kidneys are also highly specialized to utilize every bit of liquid possible. They have many predators but have incredible hearing and can detect the nearly-silent approach of an owl. Their kangaroo-like back legs are also very powerful and they can jump up to 9 feet to escape predators. Kangaroo rats are nocturnal and hard to spot, but you can probably find their four-toed tracks in the sand throughout the Monument.



Banner-tailed kangaroo rat. (Photo © Enrique Perez Carrillo)

Desert Bighorn Sheep (*Ovis canadensis nelsoni*)

Desert bighorn sheep are chocolate brown with white fur around their face, rump, and belly. Females weigh between 90 and 150 pounds and have small, straight, dark brown horns and males weigh between 150 and 200 pounds and have large, curled horns

Desert bighorns live on rocky, steep terrain throughout the southwest. They are well adapted to the desert and can easily negotiate difficult terrain to stay away from predators. Since the early 1900s, however, desert bighorn numbers have declined, from several tens of thousands to only about 7,000 in 1960. This decrease is attributed to several factors including habitat loss due to human encroachment, drought and the loss of reliable water in the summer months, and disease that has spread from livestock, especially domesticated sheep. Recent efforts to protect the species, like translocating sheep to increase genetic diversity and disease resilience, protecting crucial habitat, and installing backcountry water tanks have caused population numbers to rise and now there are about 20,000 in the wild.



Desert bighorn ram. (NPS photo by Tim Luttermann)

Birds

California Condor (*Gymnogyps californianus*)

The California condor is the largest bird species in North America. It can have a wingspan of more than 9 feet, allowing for it to soar for hours. Condors are scavengers and eat the carcasses of animals that are already dead. Mating pairs nest in caves on high cliff faces and can be found in the vermillion cliffs in the southern part of the Monument and in other cliffy places like Zion National Park. California Condors are extremely endangered with only 22 birds in existence in 1980. Due to conservation efforts, there are now about 230 free-flying birds and about 160 in captivity.



California Condor No. 87 displays its wingspan. (NPS photos by Michael Quinn)

Pinyon Jay (*Gymnorhinus cyanocephalus*)

Unlike most songbirds, the Pinyon Jay is a gregarious bird most often seen in highly social flocks foraging for food in trees or on the ground in pinyon-juniper woodlands, as well as more open scrublands and grasslands. Their vocalizations are harsh nasal calls with a “laughing” quality. The medium-sized birds have an overall dull blue-gray coloring and a dagger-like bill. The size and shape of their bill helps them harvest pine nuts from pinyon cones which the birds cache for later once the seeds ripen. Their caching behavior plays a critical role in the dispersal and reseedling of pinyon pines. Pinyon Jays have been steadily decreasing in numbers over the past sixty years although no one knows exactly why. They are considered “a species of concern” by state and federal resource management agencies.

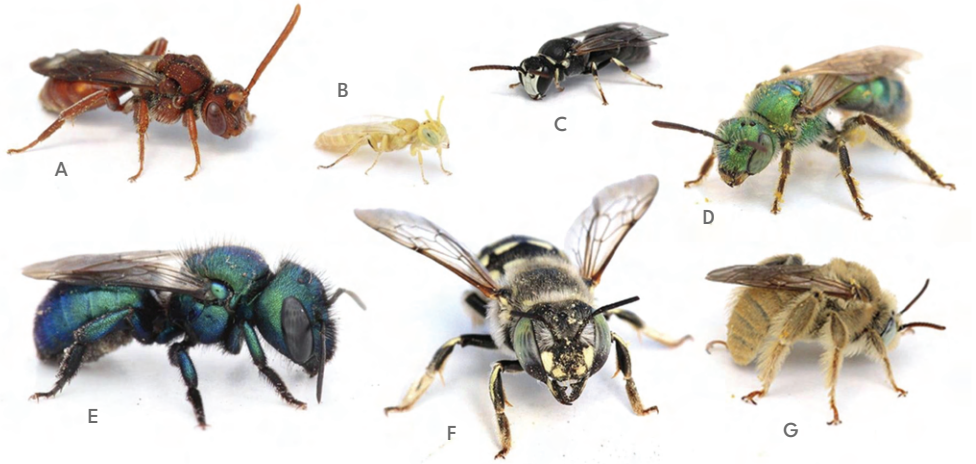


A Pinyon Jay in profile. (Photo © K Schneider)

Insects

Bees of Grand Staircase-Escalante

Grand Staircase-Escalante National Monument is home to an incredible biodiversity of bees. 660 species of bees have been documented within the boundaries of the Monument. (For reference, the entire eastern portion of the United States — all of the land east of the Missouri River — contains about 700 species). Not all of these bees look like your typical honey or bumble bee. They come in a variety of colors and patterns, including some that vary from green to blue to purple and are striped or covered in polka dots. Many of the bee species are highly specialized and are only found in one small area and only pollinate one type of flower. A few species are more populous and can be found throughout the Monument.



Bees of Grand Staircase-Escalante. The following genera are pictured: (A) *Nomada*, (B) *Perdita*, (C) *Hylaeus*, (D) *Agapostemon*, (E) *Osmia*, (F) *Anthidium*, and (G) *Diadasia*. (Photos by Joseph S. Wilson)



A Globe Mallow bee (*Diadasia diminuta*) pollinating its favorite blossom and a female emerging from her nesting chimney. (Photo © Lisa Hill • Photo © Robb Hannawacker)

Specialized Bee-havior

Globe Mallow bees (*Diadasia diminuta*), also known as chimney bees, are a good example of specialization. They prefer to pollinate their namesake, Globe Mallow blossoms. The female bees build chimneys or turrets in the ground where they nest and sleep. At dusk, you'll find male Globe Mallow bees nestled inside the plant's orange blossoms where they sleep.

Sandstone burrowing bees (*Anthophora pueblo*) are very unique to the Monument, and they exhibit a unique behavior. These rock-boring bees gnaw into sandstone to create individual nest holes that can be used for years if left undisturbed.



Anthophora pueblo nest holes in GSENM sandstone. (Photo © Jackie Grant)

Reptiles



Great Basin collared lizard.
(BLM Utah/Jonathan D. Mallory)

Great Basin collared lizard (*Crotaphytus bicinctores*)

Collared lizards are most easily recognized by the dark “collar” around their neck. They are fairly large lizards, with their body as long as 4 inches, and a tail that can be twice as long.

Leopard lizard (*Gambelia wislizenii*)

Leopard lizards are large, very fast lizards with distinctive spots. They can have a light coloration (with light tan ground color with dark spots) or a dark coloration (with a dark brown ground color and light spots). Their body can be up to six inches long with a tail that is twice the length of their body. At top speeds, they run with only using their back legs.



A female leopard lizard, possibly gravid.
(Photo © Tom Benson)



Western whiptail lizard.
(BLM Utah/Jonathan D. Mallory)

Western whiptail

(*Aspidoscelis tigris*)

Western whiptails are long, slender lizards with little distinction between their head and body. There are several species of whiptails throughout Southern Utah and some of them are only female and reproduce asexually. They are able to do this while still maintaining genetic diversity and disease vulnerability because they have twice the amount of chromosomes as sexually reproducing vertebrates

Desert spiny lizard

(*Sceloporus magister*)

Desert spiny lizards are large, stocky lizards and have distinctive yellow to gold pronounced scales and large dark marks on the side of their necks. Their tails will detach when captured by predators and will regenerate. Their tail will continue to wiggle after it detaches for several seconds to distract their predators while they escape.



Desert spiny lizard (*Sceloporus magister*).
(NPS photo by Michael Quinn)

Reptiles



Greater short-horned lizard.
(Photo © Cecelia Alexander)

Greater short-horned lizard (*Phrynosoma hernandesi*)

The greater short-horned lizard is a type of spiny lizard and is defined by their unique horns that adorn their body. They are much smaller than some of the other lizards in the area and are fairly wide with short tails. When threatened, various species of short-horned lizards have developed interesting defensive adaptations including puffing up their body to twice their size and shooting blood out of its eyes.

Side-blotched lizard (*Uta stansburiana*)

Side-blotched lizards are also a type of spiny lizard. They are small, gray to brown lizards with dark blue to black splotches behind their legs. They are very common throughout Grand Staircase-Escalante National Monument. Due to their small size, they are usually one of the first lizards out in the morning because they warm up quickly.



Side-blotched lizard.
(BLM Utah/Jonathan D. Mallory)



Plateau Fence Lizard
(*Sceloporus tristichus*).
(BLM Utah/Jeremy T. Dyer)



Ornate tree lizard (*Urosaurus ornatus*).
(Photo © RachBergy)

Other spiny lizards

There are several other species of spiny lizards found throughout the Monument. They can be hard to identify due to their large variation of gray to brown coloring and relatively similar sizes. These lizard species include the common sagebrush lizard (*Sceloporus graciosus*), plateau lizard (*Sceloporus tristichus*), and tree lizard (*Urosaurus ornatus*).



Common sagebrush lizard (*Sceloporus graciosus*).
(BLM Utah/Jonathan D. Mallory)

How To Respect Desert Wildlife



RULES OF THUMB:

1. NEVER FEED WILD ANIMALS

Human food can be detrimental to desert animals. Food includes human and pet food, trash, and scented or flavored toiletries.

NO!
YOU MUST
RESIST THE
CUTENESS!

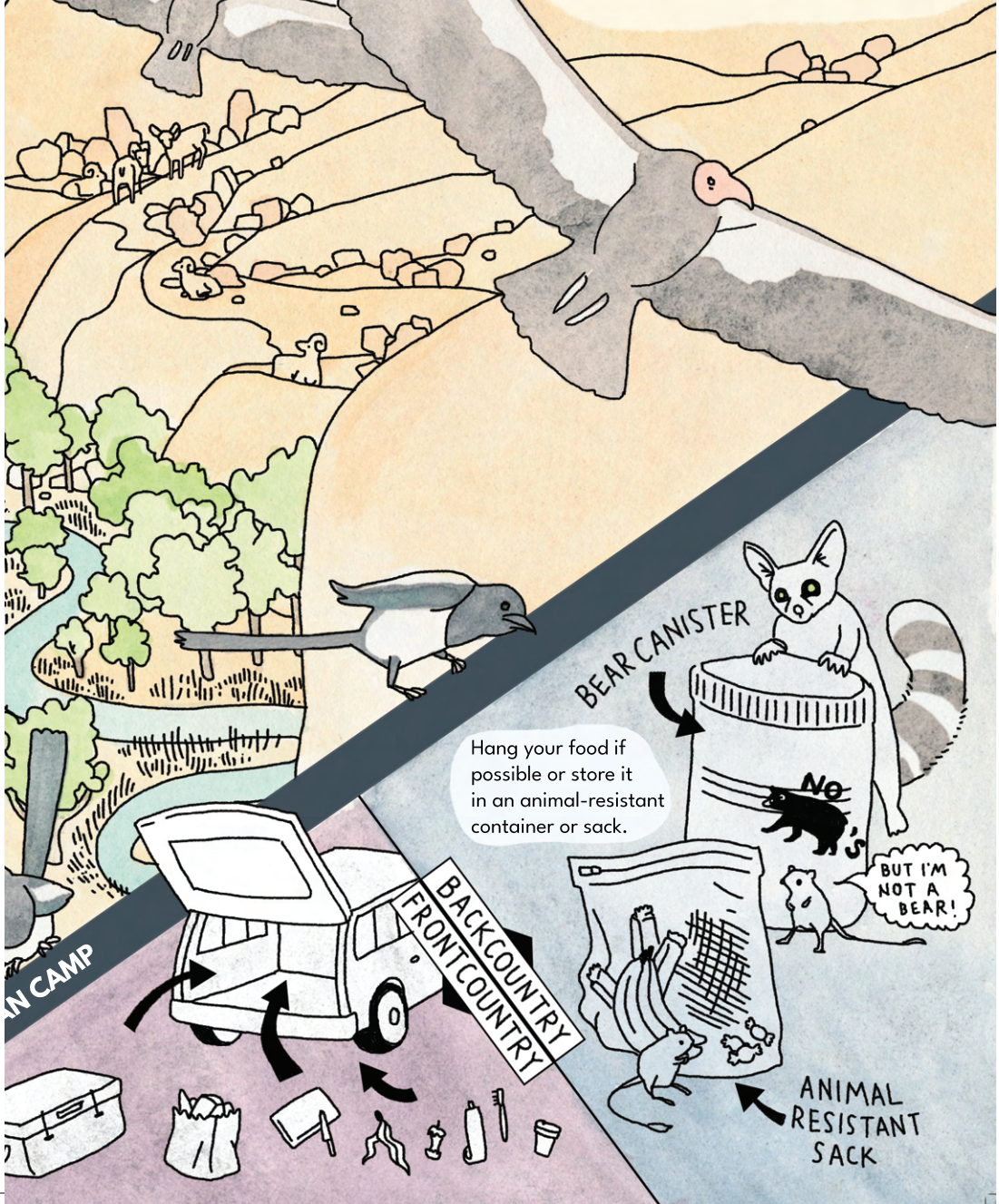
2. OBSERVE WILDLIFE FROM A DISTANCE

3. KEEP A CLEAN C



nals.

Do your best to watch animals from an appropriate distance - never startle them or force them to flee. Treat animals with the utmost respect and do not follow, approach, touch, or handle them. If you are in the path of a wild animal, get out of the way and allow it to pass. Do not block sources of water or harass animals out of hiding places, especially during the heat of the day.



Acknowledgements

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CREDITS:

This guide is provided courtesy of Grand Staircase Escalante Partners (GSEP), a non-profit organization whose mission is to honor the past and safeguard the future of Grand Staircase-Escalante National Monument (GSENM) and its connected watersheds and landscapes through science, conservation, and education. You can learn more about GSEP at gsenm.org.

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Grand Staircase-Escalante National Monument.

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Spinystar cacti are one of several species found in the Blues Wilderness Study Area. These two were growing next to young Mojave kingcup cacti (upper left). Spinystars are viviparous, which means that they can grow "pups" from their stem tips. These pups can grow to be independent of the parental plant. (Photo © Jackie Grant)