



FRIENDS OF CITY OF ROCKS NEWSLETTER
(Vol. 2, No. 4, December 2018)
MISSION STATEMENT

The purpose of the Friends of City of Rocks State Park, Inc. (website: <http://www.friendsofcityofrocks.org>; e-mail address: friends@friendsofcityofrocks.org) is to help support the New Mexico State Parks in the enrichment of the park area. Specifically, the Friends aim to enhance, preserve and promote park use, to participate in nature as responsible stewards of the earth, to create an awareness of the wonder, fragility and importance of the park, to develop and improve existing education/interpretive programs, to develop and improve public awareness of the park, and to encourage public participation and/or membership in the Friends group.

BECOME A MEMBER OF THE FRIENDS!

Interested in helping out City of Rocks State Park? Consider joining the Friends. Typical Friends activities include highway cleanup, cutting and splitting firewood for sale to park campers, operation of a gift shop in the park Visitor Center, fund-raising, etc. To join, a) complete and send in the membership application form at the end of this newsletter, OR b) download, complete and submit a membership application from the Friends website (see above). NOTE: If you are already a member of the Friends, it is time to renew your membership! You can do so using the same form mentioned above.

UPCOMING EVENTS

Saturday, Jan. 12 2019 (11 AM – 1 PM,
park Maintenance Building). General Meeting of the Friends.

*The meeting will open with a 20-30 minute presentation on “Winter Birds of City of Rocks” State Park by Bill Norris.

*A general meeting will follow to plan the schedule of events for the first half of 2019 (Botanical Garden maintenance and improvement, firewood hauling and splitting, roadside cleanup, fund-raising, etc.).

***A potluck lunch will follow. All attendees are welcome to join us, and to bring a dish to share.**

***Afterwards, attendees are invited to help haul cut firewood from the park Maintenance Building to the park Visitor Center.**

Saturday, Jan. 26 2019. Star Party. This event begins at 6:40 PM. Meet at the Orion Group Site.

Wednesday, Feb. 20 2019. Presentation: “Everything you ever wanted to know about City of Rocks State Park ..” by Tim Geddes, Gabriel Medrano, Corrie Neighbors, William (Bill) Norris, Roxanne Solis-Snyder and Kathy Whiteman. Sponsored by Western Institute of Life Long Learning (WILL). WNMU Global Resource Center 1st Floor ABC Room, noon-12:50 PM. Free to the public. For more information visit <https://www.will-learning.com/#/lunchlearn>

RECENT FRIENDS ACTIVITIES

***On October 28 2018, the local Boy Scout troop and their scout leaders helped the Friends during a highway cleanup between mile markers 3 and 4 along Hwy 61 near the park. They used grabbers to pick up trash and filling up numerous large garbage bags.**

Thanks guys!



Participants in the successful highway roadside cleanup in October 2018: (L to R) Kevin, Michael, Evan, Matt, Bill Norris, Steve Collie, Susan Moseley, Jason. Photo by Tim Geddes.

***On three Sunday mornings in late fall 2018, the Friends (Frank “Andy” Anderson, Rachelle Bergmann, Steve Collie, Brian Dolton, Tim Geddes, Susan Moseley, Tony Mendoza, Bill Norris) cut and hauled downed logs in Mangus Springs and just below Pinos Altos. On another Sunday morning, Friends volunteers used a wood splitter to break up some of these logs into smaller pieces, which were loaded onto a trailer just outside the Visitor Center for sale (\$5/bundle) to park campers. Thanks to Jim Taylor (Mangus Springs) and Karen Blisard/Russ Kleinman (Pinos Altos) for their generous donation of downed logs on their properties!**

***The Friends recently purchased a new, large chainsaw so during future wood cutting events we can cut bigger logs than our smaller chainsaws have been able to handle.**



Friends splitting logs in into smaller pieces for later sale to park campers. Participants: (L to R) Bob, Bill Norris, Steve Collie, Tony Mendoza.

SUMMARY OF GENERAL MEETING OF THE FRIENDS OF CITY OF ROCKS (SATURDAY, NOV. 10 2018)

by Susan Moseley

A general meeting of the Friends of City of Rocks took place at 11:00 AM-3:00 PM on Saturday, Nov. 10 2018 at the Maintenance Shop at City of Rocks State Park.

*The meeting was attended by Melissa Amarello, Robert Benito, Steve Collie, Tim Geddes, Ruth Kosh, Janice Krish, Gabriel Medrano, Susan Moseley, William (Bill) Norris, Bobbi Widick and approximately 10 other active members and guests. The Friends thanks all of these individuals for the participation in the meeting and interest in the Friends.

*Ms. Melissa Amarello, co-founder of Advocate for Snake Preservation (<https://www.snakes.ngo/>), gave a wonderful presentation about snakes and how to preserve and advocate for them.

Melissa held everyone's rapt attention for well over an hour while discussing many aspects of rattlesnake behavior, ecology, and conservation. She brought a live snake for all to see. Thank you Melissa!

*The following upcoming events and potential projects were discussed:

**Firewood gathering and firewood bundling. There is urgent need for firewood for the campers and bundling of firewood. Andy Anderson, Tim Geddes, Steve Collie and Bill Norris recently picked up wood from Magnus Spring generously donated by Jim Taylor. They will be going again on 11/11/18 at 8:30 am to pick up more wood for the Park and splitting and bundling will happen on 11/18/18 at 8:30 AM.

***Botanical Garden. Steve Collie will obtain mulch on behalf of the Friends. It was decided that we would start laying down mulch in January 2019 in the botanical garden area.

****Star Parties. The Friends will continue to co-sponsor Star Parties at the Park every Saturday on or after the New Moon. Check with the Visitor's Center or logon to the Friends website to get exact date.

*The following Friends business items were discussed: approval to purchase a new starter for a Park vehicle; information needed by early January 2019 for accounting for the 501C; website maintenance fee; financial report; lease/rental agreement with NMSP; volunteer insurance; membership status; approval of slate of officers for 2019; discussion with Janice Krish regarding

Friends projects; and development of a new brochure for the Friends.

AVIAN MASTERS OF THE NIGHT

by Tony Godfrey

Let's take a look at the City of Rocks avian masters of the night. You may be asking yourself "What exactly are avian masters of the night?" Owls may be the obvious answer, but there is another group of birds at the City of Rocks that can also be found at night. I will discuss both groups, but first I will start with the owls:

Great Horned Owl

This large owl can be found in a wide variety of habitats from the Arctic to South America. Its deep hoots may be a familiar sound to anyone who has camped at the City of Rocks. At least two pairs are year round residents in the park and one pair typically nests and raises two or three young on one of the taller boulders every January.



Great Horned Owl. Photo by Tony Godfrey.

Long-eared Owl

This medium-sized owl inhabits Europe, Asia, and North America. Although

somewhat similar to a Great Horned Owl, the slender Long-eared Owl has longer ear tufts and lacks a white throat. The winter movements of this owl are unpredictable and are not clearly understood. Small groups of a dozen or more birds may roost in the oak trees tucked within the boulders one winter, and then oddly enough, they may not be found in the park for the next several years.



Long-Eared Owl. Photo by Tony Godfrey.

Barn Owl

The Barn Owl is the most widespread owl in the world, occurring on every continent except the Antarctic. At the City of Rocks, it can be found during the day roosting in the wooden box attached to the windmill behind the visitor center. If camped in the park and you hear a loud "screech" at night, chances are it will have come from this species. To find out what it eats, feel free to inspect the regurgitated pellets that are readily found directly below the wooden box.



Barn Owl. Photo by Tony Godfrey.

Moving on from the owls, we will take a look at the second group of nocturnal birds that inhabit the City of Rocks. These are the Nightjars, also known as Goatsuckers due to ancient folklore claiming they drank the milk from nursing goats at night!

Common Nighthawk

During the summer months, you may be fortunate enough to hear a loud “peeent” call. Look high above you for a medium-sized, slender bird with long, pointed wings. A closer look may reveal a white patch near the tip of the wing indicating it is a Common Nighthawk. This camouflaged species typically roosts on tree limbs and on boulders during the day. Dawn and dusk are the best times to hear and observe these birds hunting aerial insects.



Common Nighthawk. Photo by Tony Godfrey.

Common Poorwill

If you are slowly cruising along the entrance road on a warm summer’s night and you happen to see a small yellowish light on the surface of the road, chances are it is the “eyeshine” of a Common Poorwill reflected from the beam of your headlights. Until recently, it was thought this species was strictly a summer visitor. A few birds in southern New Mexico and adjoining states were recently found roosting in rock crevices during the winter months. It is now known to be the only bird that goes into an extended hibernation-like state known as “torpor”. A few other birds such as hummingbirds or wrens can achieve this for several hours, not several weeks as is the case with the Common Poorwill. During summer evenings, listen for its ‘poorwill’ call coming from the grass-covered hillsides along the park entrance road.



Common Poorwill. Photo by Tony Godfrey.

INTERESTING INSECTS AT CITY OF ROCKS STATE PARK

by Tim Geddes

Worldwide there are more species of insects than all other plants and animals combined. Furthermore, there are more species of plant-eating insects than there are species of plants. Insects are in the Phylum Arthropoda which means joint-footed. Spiders, scorpions, and millipedes are also Arthropods but are not insects. Members of the Class Insecta are characterized by having three body divisions, compound eyes, and a pair of antennae. The word insect comes from the Latin “insecare” which means “to cut into” referring to the insects segmented bodies. The desert grassland, including that at City of Rocks State Park, is home to a diversity of insect life which are fascinating objects for study.

Some of the most conspicuous insects of the desert are the darkling beetles. These are in the Order Coleoptera which contains over 300,000 species of beetle. Darkling beetles are in the Genus *Elodes* and are sometimes called stink beetles because of their aromatic defensive odor. Beetle development occurs in four stages.

Upon emerging from an egg, the young go through a larval period then undergo metamorphosis as a pupa, from which it emerges as an adult. Darkling beetles are black and about one inch in length. Black may seem like a poor adaptation for the desert but black stands out against the sand and may serve as a warning to predators. *Elodes* beetles produce a spray which is a repellent to ants, scorpions, and tarantulas. Darkling beetles are flightless because their wing-covers (= elytra) are fused. The dead air space under the elytra provides insulation from the sun. The beetles thermoregulate by retreating underground.



Darkling Beetle. Photo by Tim Geddes.

Wasps, ants and bees are in the Order Hymenoptera which means membrane-winged. This is the third largest order of insect with over 150,000 species. All members of this order have four-stage-metamorphosis and chewing mouth parts. A conspicuous wasp that occurs at City of

Rocks State Park is the tarantula hawk. These are large wasps with blue-black bodies and orange wings. They feed on nectar but the females hunt tarantulas when it's time to lay their eggs. The spider is paralyzed, not killed, so that the developing larvae have fresh food to grow on. After the spider is subdued it is dragged to an underground chamber and the wasp lays her egg or eggs on the spider's body. Tarantula hawks are host specific. Attempting to subdue the wrong kind of spider can be fatal for the wasp.



Tarantula Hawk Wasp. Photo by Tim Geddes.

The rough harvester ant, which also occurs at City of Rocks State Park, is endemic to Colorado and New Mexico. Ants are in the Family Formicidae because of their formic acid venom. There are twenty-eight species of seed-gathering ants (Genus *Pogonomyrmex*) in North America, including the rough harvester

ant. Some harvester ants construct large mounds of discarded seeds and soil. The system of underground galleries and chambers go deep underground. Ant colonies can contain 15,000 workers and are divided into a caste system that also includes soldiers and queens. Winged males make mating flights after summer thunderstorms. Workers use pheromone trails to follow others to food sources. Some species of harvester ants enslave the reproductives of other species to raise their young for them. Harvester ants sting and bite painfully.



Harvester Ants. Photo by Tim Geddes.

Insects have been around for 300 million years. Their structure and life histories may seem almost other-worldly to humans. The study of insect life is a source of never ending interest.

IT'S A PRICKLY WORLD AT CITY OF ROCKS STATE PARK!

by William (Bill) Norris

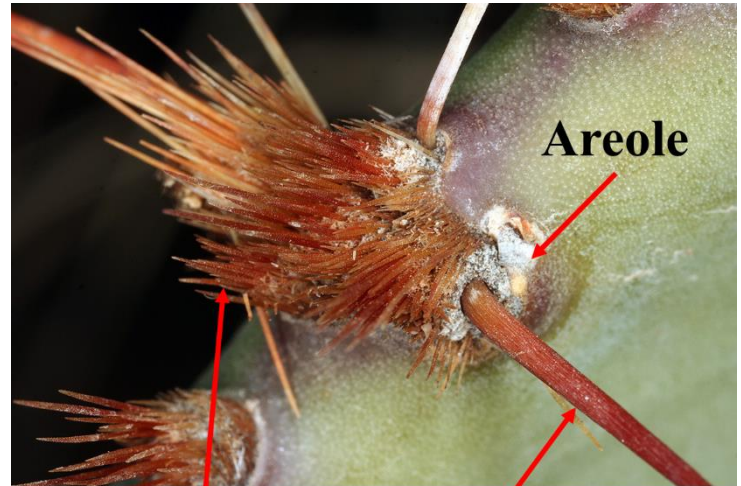
If your passion is plants, you don't have to wait until spring to enjoy them at City of Rocks State Park. Just hop on any

park trail – the Hydra Trail, the Cienega Trail, or the trail leading up to the top of Table Mountain – and be on the lookout for several dozen succulent plant species (cactus, yucca, agave, stool, etc.) at trailside or off-trail. These plants, and other spiny and thorny shrubs and small trees (ocotillo, mesquite, greythorn, wait-a-bit, wolfberry, crucifixion thorn, etc.) in the park are ready to greet you any time of year in any weather condition - snow, monsoon rain, drought, scorching heat - take your pick. Just don't wear tennis shoes.

Prickly pear cacti (genus *Opuntia*) are among the most conspicuous “prickly” plants in the park year-round. During a long-term (since 2003) inventory of the City of Rocks State Park flora, Tim Geddes and I have found eight species of prickly pear within park boundaries. These are all composed of multiple flat, green to occasionally purple pads which are, believe it or not, photosynthetic *stems*. Where are the leaves? Believe it or not, the threatening, long “prickles” that emerge from bumps (or “areoles”) on the margins and surface of prickly pear pads are highly modified *leaves*, more appropriately referred to as “*spines*”. In fact, a more botanically accurate common name for these eight prickly pear cactus species would be “spiny pear cacti.” However, the name “prickly pear” is so firmly established in common usage that I don't think a name change will happen any time in the near future.

When studying prickly pear cacti, great care must be taken in how you handle them (better yet, don't). You see, these cacti are armed with dense clusters of much smaller, hair-like *glochids* (=

barbed spines) that also emerge from areoles. Unsuspecting plant enthusiasts who can't resist touching a pad or breaking off a colorful, fleshy fruit (the “pears”) from a prickly pear cactus will quickly discover that glochids act like porcupine quills that work their way into inquisitive fingertips. Good luck trying to extract these once embedded!



Glochid

Spine

Detail of Prickly Pear Pad: Areoles, Spines and Glochids. Photo by Russ Kleinman.

The most common prickly pear cactus at City of Rocks State Park is Brown-Spined Prickly Pear (*Opuntia phaeacantha*). It can be recognized by its sprawling growth form low to the ground with pads stacked two or more high. As its name suggests, each pad of Brown-Spined Prickly Pear is covered with brown-based spines. Another name for this cactus is Purple-Fruited Prickly Pear for its colorful, upright fruits that are harvested (with great care!) and used to make delicious cactus jelly.



Brown-Spined Prickly Pear (*Opuntia phaeacantha*) closeup. Photo by Tim Geddes.



Brown-Spined Prickly Pear (*Opuntia phaeacantha*). Photo by Russ Kleinman.

Much less common in the park but superficially similar in general appearance to the above is Twisted-Spine Plains Prickly Pear (*Opuntia tortispina*), which grows very low to the ground and is usually but a single pad high. The round pads of Twisted-Spine Plains Prickly Pear are so densely covered with spines that it seems to say “Mess with me? I dare you!” Look for this ferocious

prickly pear in open desert grassland throughout the park.



Twisted Spine Plains Prickly Pear (*Opuntia tortispina*). Photo by Tim Geddes.

Growing in this same habitat in City of Rocks State Park is another uncommon low-growing prickly pear whose pads are obviously widest above the middle and which are conspicuously wrinkled in appearance, especially in winter. These characteristics describe two very similar species, Pott’s Prickly Pear (*Opuntia pottsii*) and Plains Prickly Pear (*Opuntia macrorhiza*) which botanists, even cactus specialists, have difficulty identifying. So which one of these do we have in the park? I’m sure the cactus knows .. if it would only tell us!



Pott's Prickly Pear (*Opuntia pottsii*) or Plains Prickly Pear (*Opuntia macrorhiza*). Photo by Russ Kleinman.

If you happen upon a common, somewhat shrubby prickly pear with upright stems of thick, round or oval pads covered on pad face and margin with yellow-based or white-based spines, you have certainly discovered Engelmann's Prickly Pear (*Opuntia engelmannii* var. *engelmannii*). Early in the growing season, it has large, beautiful yellow flowers which attract numerous pollinators.



Engelmann's Prickly Pear (*Opuntia engelmannii*) closeup. Photo by Tim Geddes.



Engelmann's Prickly Pear (*Opuntia engelmannii* var. *engelmannii*). Photo by Tim Geddes.

Tim and I have discovered an introduced variety of this cactus species, Cow Tongue Prickly Pear (*Opuntia engelmannii* var. *linguiformis*) growing adjacent to a campsite on the north end of loop road. The common name of this cactus species (native to Texas, hence its alternate common name Texas Prickly Pear) tells you all you need to know about how to identify it (see photo). How did Cow Tongue Prickly Pear, planted in residential areas in every surrounding town, arrive at City of Rocks State Park? Did a bird drop its seeds on the ground here while foraging for food scraps left by a camper? Did a camper intentionally plant it here? An interesting question to ponder, but we'll probably never know the answer.



Cow Tongue Prickly Pear (*Opuntia engelmannii* var. *linguiformis*).
https://upload.wikimedia.org/wikipedia/commons/9/90/Opuntia_engelmannii_var_linguiformis_kz1.JPG

The other conspicuously upright prickly pear species in the park is Pancake Prickly Pear (*Opuntia chlorotica*). It has an obvious trunk (usually lacking in Engelmann's Prickly Pear) at the top of which are elevated, spreading branches that give this cactus a scarecrow-like appearance. Pancake Prickly Pear pads are very round and thin, with spines dense on the pad margins and more diffuse on the pad face. This is an uncommon cactus species at City of Rocks State Park, but can be easily seen in the vicinity of the park Botanical Garden and adjacent campsites along Loop Road.



Pancake Prickly Pear (*Opuntia chlorotica*) closeup. Photo by Tim Geddes.



Pancake Prickly Pear. Photo by Tim Geddes.

There are two more prickly pear cacti species to be seen at City of Rocks State Park, both in the vicinity of the Botanical Garden near the south end of Loop Road. One of these, Beavertail Cactus (*Opuntia basilaris*), has obviously been planted in the garden and can be easily observed adjacent to the garden parking area. A native of states to the west and north of New Mexico, Beavertail Cactus is distinct from all other prickly pear cacti species at City of Rocks State Park in that its pads lack any long spines (which are still densely covered in glochids, so touch at

your own risk!). The native plant purist will probably not be happy to discover this lovely but introduced cactus species in the park Botanical Garden. I respect this viewpoint, but counter that there is value in showcasing a few such distinctive non-native cactus species for park visitors who wish to learn about cacti of the Southwest in general. After all, the park is visited by residents of Arizona, California, Nevada and Utah (all states where Beavertail Cactus occurs naturally) every year, so why not give these out-of-state visitors an opportunity to learn about cactus species that occur back home? Furthermore, Beavertail Cactus does not have the potential to invade native vegetation and outcompete all the other native prickly pear species in the park. That's my two cents on this issue.



Beavertail Cactus (*Opuntia basilaris*).
https://commons.wikimedia.org/wiki/File:Opuntia_basilaris_7955.JPG

The last prickly pear species that Tim and I have discovered within the boundaries of City of Rocks State Park is Black-Spined Prickly Pear (*Opuntia macrocentra*), a few plants of which occur in open land just outside the Botanical

Garden. This cactus species somewhat resembles Brown-Spined Prickly Pear in overall appearance but differs in having purple pads most of the year, and in its possession of very long, black-based spines on these pads. Black-Spined Prickly Pear is quite common at lower elevation in the foothills of the Florida Mountains a mere 25 miles away, but its occurrence in the park seems to be limited to the Botanical Garden area. Perhaps it too (like Beavertail Cactus) was planted in the park, or, maybe it is just rare here. Another unsolved mystery.



Black-Spined Prickly Pear (*Opuntia macrocentra*).
https://de.wikipedia.org/wiki/Opuntia_macrocentra#/media/File:Opuntia_macrocentra_2.jpg

Make no mistake, prickly pear identification is not always easy. If you embark on this journey, as we have, to learn how to identify the various species of *Opuntia* in the park, you will encounter some prickly pears cacti that appear to be intermediate between two or three species. Don't despair! It is worth the effort to get to know these hardy

succulent plants. For an excellent reference to cacti of the Southwest, pick up a copy of Cacti of the Trans-Pecos & Adjacent Areas (2004) by A. Michael Powell & James F. Weedon, published by Texas Tech University Press, which contains more information about cacti (adaptations to desert living, cultural use

by people over the past several thousand years up to present, detailed descriptions with interesting anecdotes and useful identification tips, etc.) than you could ever imagine existed.

Membership Application

Friends of City of Rocks State Park, Inc. (FCR)

FCR is a non-profit 501(c) organization dedicated to enhance, preserve and promote park use. Your contribution and membership will give you the satisfaction of helping preserve and protect one of the most beautiful places on the planet.

_____ New _____ Renewal

Name(s) _____

Address _____

City, State, Zip _____

Phone _____ E-Mail _____

Yes, I want to support FCR. Enclosed are my annual membership dues. Dues and donations are tax deductible.

***ACTIVE MEMBER: (Voting)**

SPONSOR (Non-Voting)

_____ \$15 Individual

_____ \$25 Friend

_____ \$20 Family

_____ \$50 Good Friend

_____ \$10 Senior (single or couple)

_____ \$75 Very Good Friend

_____ \$500 Lifetime

_____ \$100 Best Friend

_____ \$500 Special Best Friend

In addition to my dues, I enclose \$ _____ as a donation (optional)

*Active dues paying members are those individuals who are entitled to vote at annual meetings and MUST participate in at least one of the following. Please check at least one of the following:

_____ Hospitality _____ Newsletter _____ Programs _____ Membership _____ Publicity

_____ Garden Care _____ Fund-Raising _____ Events _____ Scrapbook _____ Officer

Active Members receive free day admittance to City of Rocks State park

Thank you for your support and interest. Together we can create an awareness of the wonder, fragility, and importance of City of Rocks State Park.

Please send your check to: Friends of City of Rocks State Park, Inc., PO Box 74, Hurley, NM, 88043

Upon receipt of our completed membership application, you will receive a welcome letter, receipt, and membership card. For further information or questions, please call 1-228-363-1403.

Official use only

Date Received: _____ Ck#: _____ Cash: _____ Membership Card: _____

