



FRIENDS OF CITY OF ROCKS NEWSLETTER
(Vol. 2, No. 3, September 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!

To become a member of the Friends of City of Rocks, 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.

**GENERAL MEETING OF THE
FRIENDS (SATURDAY, AUG. 25 2018)**

SUMMARY
by Susan Moseley

A general meeting of Friends of City of Rocks took place at 11:00 AM-1:00 PM on Saturday, August 25, 2018 at the Orion group area at the City of Rocks State Park.

*** The meeting was attended by eleven people: Steve Collie, Tim Geddes, Bill Hudson, Dennis Lane, Susan Moseley, William (Bill) Norris, Linda Pafford, Tsama Parsons-Pineda, Sue Teller-Marshall, Dean Thomasson, and Sherry Thomasson. The Friends thanks all of these individuals for their participation in the meeting and interest in the Friends.**

*** Dr. Kathy Whiteman, Department of Natural Sciences, Western New Mexico University, gave a presentation about undergraduate student research that she and Dr. Corrie Neighbors are supervising at City of Rocks State Park.**

*** The following upcoming events and potential projects were discussed:**

***“Adopt-a-Highway” cleanup between mile markers 3 and 4 on Hwy 61 will be held on October 28, 2018, at 8:30 AM; firewood cutting and bundling; Botanical Garden renovation; and programs for upcoming meetings.**

*** The following Friends business items were discussed: firewood supply; approval to purchase three dog waste stations for the park; membership; Friends website; newsletter; Friends email address; financial report; lease/rental agreement with NMSP; Friends 501c3 status approved; Star Party; volunteer insurance; 2019 slate of officers; and future programs.**

*** The next meeting will be held, Saturday, November 10, 2018, at the Maintenance Building, City of Rocks State Park.**

**PRESENTATION BY DR. KATHY
WHITEMAN ON UNDERGRADUATE
STUDENT RESEARCH CONDUCTED
AT THE PARK**

by William R. Norris

Dr. Kathy Whiteman captivated attendees at the Aug. 25 2018 General Meeting of the Friends in her presentation of WNMU student research projects conducted in the park, referring

frequently to three posters presented by her students to summarize this research. Several of these projects utilized Sherman traps to trap small mammals, which Kathy demonstrated using one a Sherman trap that she brought with her for this occasion. She also described how students used Geographic Information System (GIS) technology to answer intriguing ecological questions such as the influence of slope aspect on abundance of particular rodent species. This presentation prompted much discussion about potential future research projects by WNMU students, and also highlighted the need for future comprehensive inventories of the park biota to supplement existing inventories of park birds and plants.

All attendees greatly enjoyed the information Kathy shared with us about student research conducted as well as her great enthusiasm for promoting educational activity at City of Rocks.

NEW FRIENDS TREASURER

Susan Moseley has recently taken over for Gary Woollen as Treasurer of the Friends. Gary resigned as of June 30. The Friends officers voted in favor of Susan to take over this important position. We would like to thank Gary for all he has done in the past year and one-half for the Friends group. We would also like to welcome Susan as a new member of the Board, and to thank her for all the hard work she has already done to support this organization!

SUMMARY OF FRIENDS OF NEW MEXICO PARKS “GROW THE GOOD” SUMMIT (JUNE 9 2018)

by Gary Woollen

On June 9 2018, City of Rocks State Park Manager Gabe Medrano and I attended the Friends’ Summit in Albuquerque. The Summit started after registration at the Rio Grande Nature Center. Fifty people were in attendance as NM State Park Director Christy Tafoya gave an opening speech on how effective Friends groups statewide are vital in supporting NM State Park operations. Janice Krish, Volunteer and Friends Group Coordinator, summed up what groups need to do on paper to keep in the legal zone. David Certain from Santa Fe gave a summary of what NM Parks can and can not do for Friends group functions.

Each of the Friends groups represented at this meeting gave a three minute presentation on their group and activities. Fund-raising ideas ranged from geo caches to Santa Claus for children. I pointed out that the last project undertaken by the Friends of City of Rocks was an “Adopt the Highway” litter pick-up, and recommended that other Friends groups could contact the New Mexico Department of Transportation for details to get set up.

Beth Wojahn – Marketing Director for NM Parks, gave a presentation on how Friends groups can list their upcoming events at nmstateparks.org and also spoke of how to apply for matching marketing grants. She also announced

that NM Magazine would have a photo contest we could enter by March 2019.

During lunch, the NM Park Director gave a presentation on the Rio Grande Trail with final plans due out in September. Rosemary Romero, the Summit Master of Ceremonies and consultant to the Rio Grande Trail Commission, gave details of trail locations which can be found at <http://www.riogrande.com/contract>.

In the afternoon, the Friends groups received tips on recruiting new and younger people to a group via interns and outreach to other organizations. A panel of park staff was held with Gabe Medrano giving a talk on how Friends of City of Rocks gives vital funds to help with City of Rocks State Park maintenance. A Friends’ panel spoke about the challenges and successes all Friends groups go through in their development.

The Summit closed with NM Parks Director Christy Tafoya calling for the formation of a NM Statewide Friends Group which would help with future summits.

UPCOMING FRIENDS AND PARK EVENTS

Saturday, September 8 2018. Star Party. Sunset 7:23 PM, starts 8:35 PM, ends 10:05 PM.

Saturday, October 13th. Star Party. Sunset 6:37 PM, starts 7:50 PM, ends 9:20 PM.

Sunday, October 28 2018. Adopt-A-Highway cleanup between mile markers 3 and 4 on Hwy 61. Meet at the Visitor's Center at 8:30 AM to pick up bags, vests and grabbers.

Saturday, November 10 2018. General Meeting of the Friends. Meet at the Park Maintenance shed at 11 AM. The meeting will open with a presentation by Ms. Melissa Amarello entitled "Living with Snakes". Melissa will discuss how to manage snakes in your yard, answer common questions about snakes, and share her observations on snake behavior. Melissa is co-founder and director of Advocates for Snake Preservation. She will bring live snakes. This presentation will be followed by a general meeting of the Friends, and conclude with a pot-luck dinner open to all meeting participants and attendees.

Saturday, November 10th. Star Party. Sunset 6:37 PM, starts 7:50 PM, ends 9:20 PM.

Saturday, December 8th. Star Party. Sunset 5:02 PM, starts 6:15 PM, ends 7:45 PM.

BIRD PROFILE: TURKEY VULTURE *(Cathartes aura)*

Text and Photo by Tony Godfrey

A typical visitor to the City of Rocks during the summer months would be hard pressed not to notice a soaring Turkey Vulture. To most people, the "buzzard," as most people call it, is often considered one of the ugliest of birds. For

me though, it is one of the most fascinating birds.



A soaring Turkey Vulture glides effortlessly over the City of Rocks

I will take this opportunity to share some interesting facts about this amazing bird

- 1. The Turkey Vultures sense of smell is absolutely incredible. In 1938, the Union Oil Company injected a foul smelling organic chemical into their pipelines to test for leaks. The chemical, which is known as Mercaptan, smells like rotten eggs or decaying carcasses. Attracted by the stench, the Turkey Vulture gravitated towards the source, leading the oil workers to the leaking pipe.**
- 2. The head and legs of the Turkey Vulture are not covered in feathers. This allows it to dig deep into a carcass and not get messy feathers. After a feast, it will urinate on its legs to "disinfect" them and sit in the sun to "bake" any remnants of the carcass on its head!**

3. A hundred years ago, the northern most range of the Turkey Vulture was the southern border of the United States. Today, it ranges all the way into southern Canada. Nope, this is not due to global warming. Instead, it is due to the invention of the automobile, and the highway system that followed. Think of road kill and you will realize why the range expansion!

4. The Turkey Vulture has an excellent immune system. It will eat putrid carrion that has been dead for several days without contracting botulism, anthrax, cholera, or salmonella! The biggest concern for the Turkey Vulture is carcasses left by hunters that contain lead shot. Birds such as the Turkey Vulture and the endangered California Condor eat the shot and eventually die from lead poisoning.

5. Although the Turkey Vulture may be found year round in some southern states, many birds, including the ones in New Mexico, spend the winter anywhere between Mexico and northern South America.

So the next time you observe a soaring Turkey Vulture, I hope you remember what an amazing bird it is!

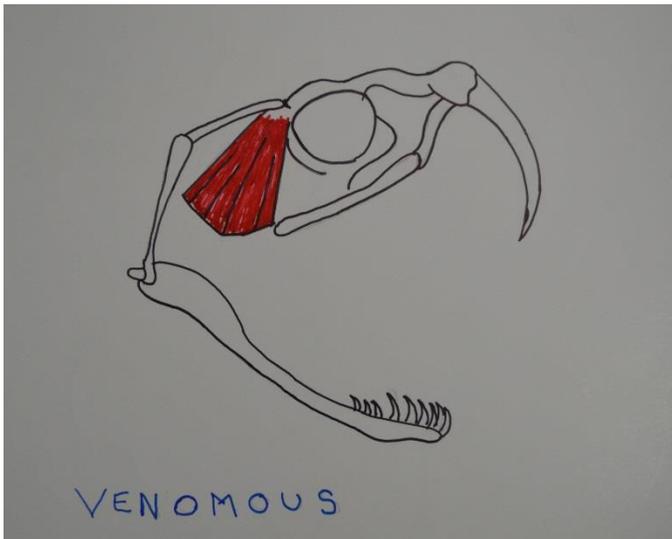
SNAKEBITE

Text and Drawings by Tim Geddes

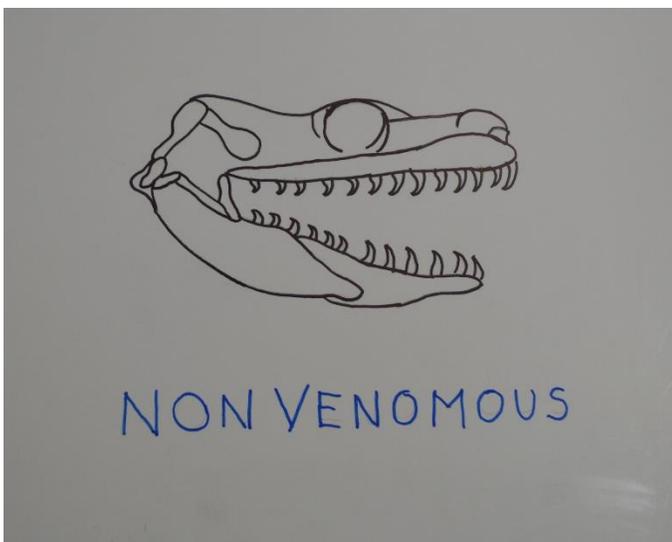


The fear of snakebite is out of proportion to the danger of being bitten. Snakes are not out to get people. Snakes don't have the brain power to launch themselves on any campaign against mankind. A snake may act defensively to a person just as it would to any large predator.

There are 46 species of snakes in New Mexico but only eight of these are dangerously venomous to man. Except for coral snakes, all venomous snakes in New Mexico are rattlesnakes.

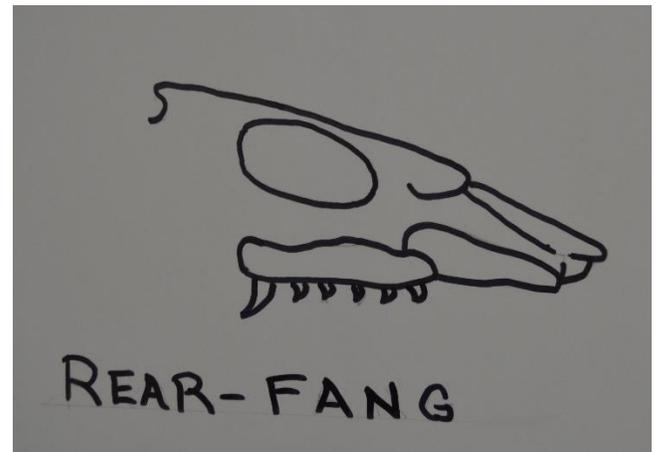


What is the difference between poisonous and venomous? A venom is a toxin that is injected into its prey or enemy. A poison is a substance that is harmful to eat or come in contact with. A bee sting is venomous. A mushroom can be poisonous.

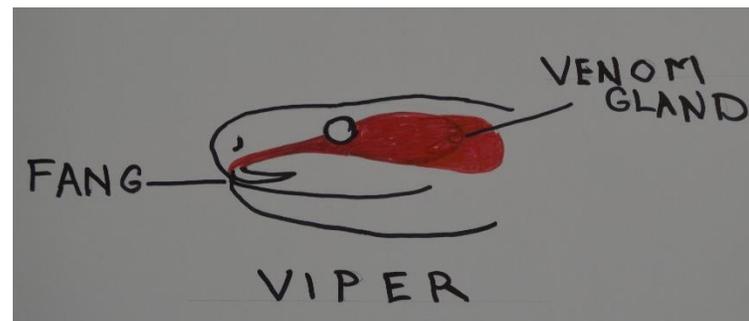


Over evolutionary time snakes have shown a tendency to become venomous. Several unrelated groups have developed fangs at the rear of the upper jaw. There are many rear-fanged species in New Mexico but they are not dangerous to man. Cobras and coral snakes have

permanently erect fangs at the front of the mouth. Vipers, including pit vipers, have long foldable fangs at the front of the mouth.



Venom is produced by modified salivary glands located behind the eyes and is used to procure food. Defense is secondary. Venom injection is entirely up to the snake and an estimated 40 to 50% of defensive bites are “dry” bites and no venom was injected.



Snake venom is a complex mixture of nerve-affecting neurotoxins and blood and tissue destroying hemotoxins. Enzymes in venom include proteinases that break down protein and cholinesterase that inhibits nerve transmission. Neurotoxins are fast acting and cause little or no tissue damage at the site of the bite. It can be difficult to determine how much venom was injected.

Drooping eyelids is a sign of severe neurotoxic envenomation. Hemotoxic venom causes pain, swelling, and blacking of the flesh. Fangs punctures should be evident.

Many factors affect the outcome of snakebite. The location of the bite and the amount of venom injected can be critical. The age, weight, and health of the victim are important. Any past snakebites or the use of antivenom must be considered.

The old first aid treatment consisting of tourniquet, cutting the fang wounds, and sucking the venom out has been condemned by medical authorities. The procedure was causing more damage than was justified. Venom is absorbed by animal tissue like ink on a wet sponge. The best thing to do if bitten by a venomous snake is get the victim to a hospital as soon as possible where antivenom can be administered and supportive medical treatment is at hand.

Antivenom (antivenin) is made by injecting horses with increasing doses of venom and the horse develops antibodies to the venom. The blood is drawn off and antivenom is processed. A sensitivity test is given before injection of the antivenom to determine if there is an allergic reaction to horse proteins. Anaphylactic shock can kill faster than the snake. Some antivenoms are made using sheep for those individuals that have a sensitivity to horse serum.

Venomous snakes seem largely immune to their own venoms. Mongooses, kingsnakes, and possibly some other

animals have evolved immunity to venom. Can man acquire a similar immunity? William Haast of the Miami Serpentarium through self-immunization and repeated bites may have achieved a degree of immunity. At least, he survived the bites of snakes that could have killed him.

There are an estimated 7,000-8,000 cases of snakebite each year in the U.S. but there are only about 10 deaths. Your chances of being killed by lightning is greater than being killed by snakebite. Snakes don't have the sharp senses of mammals and birds may not see you coming. Watch where you put your hands and feet and you will be all right in snake country. Most bites occur when handling the snake.

No venomous snake in New Mexico is going to attack hikers and campers. Wear long pants and boots and carry a walking stick. There is no need to cancel your hike because you see a snake.

THE GRAMA GRASSES OF CITY OF ROCKS STATE PARK

Text by William R. Norris, Photos by Russ Kleinman unless otherwise noted.

When I moved to Silver City, NM almost 20 years ago, I (a native Midwesterner) naively expected to encounter desert vegetation where one could catch some shade underneath the spreading arms of tall cacti as depicted on many a postcard pronouncing "Welcome to Arizona". Wrong! I quickly discovered that New Mexico is not Arizona (no offense), and

that while cacti are quite common in open lands in the Land of Enchantment, desert grassland was probably the dominant vegetation in southern New Mexico, at least historically.

I can think of no better place in the southwestern corner of this state to observe wide expanses of desert grassland than that contained within the boundaries of City of Rocks State Park. In fact, as the botanist on the faculty of Western New Mexico University, I regularly bring my students to the park, drive to the top of Overlook Road, and instruct them to look around in every direction to see .. grass!

If you are initially underwhelmed by a landscape dominated by grass (see photo at top of first page of this newsletter), consider the important role that grasslands have played in the history of the Southwest. From indigenous people who harvested grain for sustenance to Spanish conquistadors who relied on abundant grass to feed their livestock while in pursuit of gold to the cattle drives across grassland romanticized in western cinema from John Wayne to Lonesome Dove through today, *grass* is a unifying theme.

There is something to be said for learning the names of some of these grasses to enhance one's appreciation of grassland vegetation. SO, let me introduce you to some of the most distinctive grasses in the park: the grama grasses.



Blue Grama (*Bouteloua gracilis*)

Grama grasses are warm-season grasses, which means that the bulk of their growth and reproduction occurs in the latter half of the summer into the fall when temperatures reach their peak. All of them have distinctive reproductive branches that look like flags projecting out into the wind from elevated stalks. I will dispense with botanical jargon as I present six grama grass species to you using plain old English.



Side-Oats Grama (*Bouteloua curtipendula*)

Side-oats grama (*Bouteloua curtipendula*) is a widespread, conspicuous perennial grass throughout City of Rocks State Park. Like most perennial (i.e., long-lived) grass species, side-oats grama strongly resists being pulled from the ground. This grama grass species is characterized by many, many short lateral reproductive branches which dangle freely in the wind on a breezy day. Side-oats grama is considered to have high forage value, which means that cattle love to eat it. I have heard a local rancher refer to this grass as “Ben and Jerry’s Ice Cream” to a cow. Using the jargon of range management, it is considered to be a decreaser under grazing pressure.



Blue grama (*Bouteloua gracilis*)

Blue grama (*Bouteloua gracilis*) is a very common perennial grama grass species in our region. Under good light, its foliage does indeed present a blue-green hue. The reproductive “flags” in blue grama are larger, longer and fewer in number than those in side-oats grama. It would be impossible to walk anywhere in the park

from July through late fall without seeing this grass.

Blue grama, like side-oats grama, has high forage value. However, it tends to respond to grazing pressure by *increasing* in abundance. It also seems to tolerate some degree of drought. When I am asked to recommend a native grass species to plant in one’s yard, this is the one.



Hairy Grama (*Bouteloua hirsuta*)

Very similar to blue grama in appearance is hairy grama (*Bouteloua hirsuta*), which likewise has a small number of large, flag-like reproductive branches protruding out from an elevated stem. Also like blue grama, it is a perennial grass with high forage value which increases in abundance with grazing pressure. However, hairy grama differs from its “blue” relative in having long, bristle-like extensions at the end of each reproductive branch.



Hairy Grama (*Bouteloua hirsuta*)

Many people don't realize that grasses are flowering plants. Take a close look at the above photograph and try to guess what plant parts are hanging down from the illustrated branch. Are you ready for the answer? (Drum-roll please). **Anthers!** (=male flower parts) When these burst, they will release thousands and thousands of pollen grains into the air to be carried away, hopefully to land on a receptive stigma at the end of the pistil (female flower part) of another hairy grama grass.



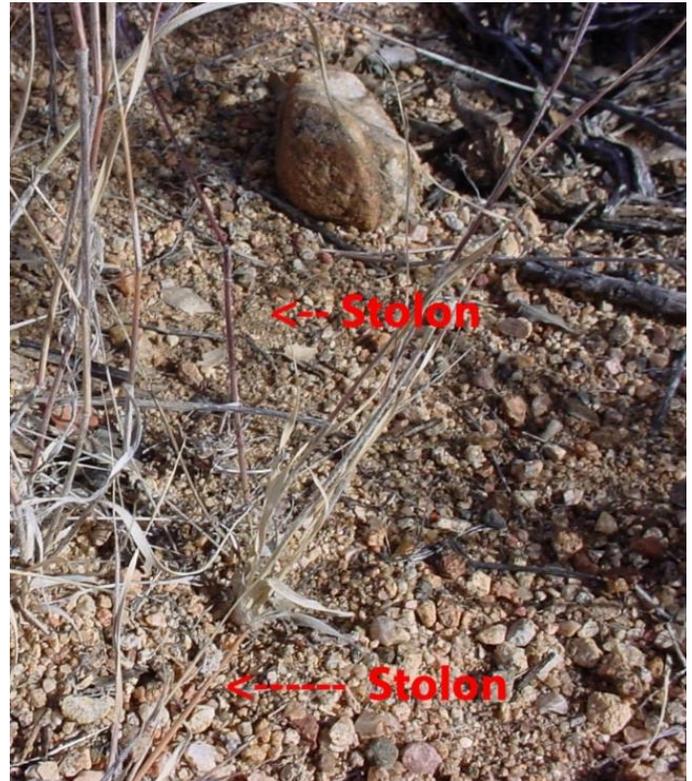
Black Grama (*Bouteloua eriopoda*). Photo source: Wikipedia.

Among the perennial grama grasses at City of Rocks State Park, the real gem is black grama (*Bouteloua eriopoda*). It has a distinct look to it relative to both blue and hairy grama grasses in that the reproductive branches are thinner and present an "up-swept" appearance. Black grama differs from all the other species of *Bouteloua* in the park in that its lower stem is covered by woolly-white hair.



Black Grama (*Bouteloua eriopoda*) lower stem, covered by woolly-white hair.

Black grama is also unique among grama grasses in its production of prostrate runners (= stolons) just above the ground that extend out from the base of most clumps and which put down roots and give rise to new shoots. These runners have distinct bands of white hair that, once seen, allow for confident identification of black grama even in winter.



Black Grama (*Bouteloua eriopoda*) stolons.

Black grama is very delectable to grazers and is thus considered to have high forage value, but declines rapidly under grazing pressure. During my almost two decade residence in southwestern New Mexico, the highest abundance of black grama grass that I have seen anywhere occurs within the boundaries of City of Rocks State Park.

Two annual species of grama grass also occur at City of Rocks State Park, six-weeks grama (*Bouteloua barbata*) and needle grama (*Bouteloua aristidoides*). True to their annual nature, these are small, short, delicate (flimsy?) grasses which can easily be pulled from the ground. Look for them in open, disturbed soil, including the gravel surrounding the park Visitor's Center.



Needle Grama (*Bouteloua aristidoides*)



Six-Weeks Grama (*Bouteloua barbata*)

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: _____

