



ROCKY MOUNTAIN NATURE ASSOCIATION *Winter 2011 \$2.00*

QUARTERLY

BEST KEPT SECRETS by C.W. Buchholtz

"He who knows the most, he who knows what sweets and virtues are in the ground, the waters, the plants, the heavens, and how to come at these enchantments, is the rich and royal man," wrote Ralph Waldo Emerson in his essay, *Nature*.

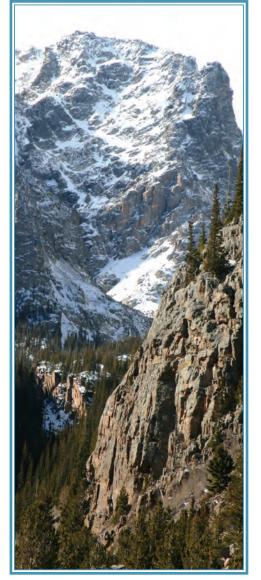
Still worth pondering, Emerson's thoughts echo through time. Today, not many people would disagree with efforts to understand the workings of the natural world. Since Emerson's day (*Nature* was published in 1836), several generations worth of research by biologists, ecologists, geologists, and a host of similar scholars have enlightened the world about nature, its contents and mysteries.

What Emerson could hardly have imagined, however, were the expanded dimensions of art and communication, specifically in publishing, photography, film, video and computers, all enabling ordinary citizens to learn more about nature and natural phenomena. Now, anyone with a television or access to the Internet can explore—albeit vicariously — a world of natural wonders virtually unknown just a short time ago. Here, the secret lives of bees and birds, snakes and spiders, grizzly bears and glaciers are revealed for all to see.

While the fields of both science and communication have grown more sophisticated, the question remains whether today's readers appreciate Emerson's use of the term "enchantments." Personally, I applaud his use of that catchy word. "Enchantment" carries with it a connection to the magical-sometimes difficult to comprehend, hardly scientific in the modern sense. Quite the opposite, to be enchanted introduces allied concepts like fascination, captivation, bewitchings, or spells. Such terms suggest that the studious objectivity attributed to science is easily paired with subjective concepts like charm or pleasure.

Just bouncing around these ideas served as a prelude to my meeting last summer with some "rich and royal" people. As readers may recall, in light of the national recession, last year we began a luncheon series called "Brown Bag Lunch with Curt." It developed into a pleasant opportunity to chat with friends. Unlike conventional rich or royal folk, everyone attending brought their own snacks. Each session hosted a surprise guest speaker. Each session had a slightly

(Secrets, continued on page 2)



(Secrets, continued)

different theme, with a dozen people attending on average.

Over the course of two summers, these luncheons taught me a few lessons about what impressed people about the park. The wealth of people's experiences in Rocky Mountain National Park could be measured in decades, if not lifetimes. Using Emerson's terms, I was among "He who knows the most, he who knows what sweets and virtues are in the ground..." For the most part, these participants were not scientists. Rather, these were people who loved the park and were unafraid to speak from the heart. Just for fun, at one luncheon we asked: "What is the Best Kept Secret about Rocky Mountain National Park?"

Here you must forgive me, dear reader, for I neither took copious notes, nor obtained permission to quote anyone publicly. So I must resort to a nineteenth century literary trick, using initials, upon which I'll base the credibility of this report. Here were their Best Kept Secrets:

A.M.B. believed that "Sunsets on Trail Ridge Road" were little known and underappreciated, especially when compared to the way sunset-watching has become an evening ritual at the Grand Canyon.



Rocky Mountain's were much more spectacular, she claimed. K.L. was less verbose, telling of "Rainbows seen after a shower's passing." A.C. said the Best Kept Secret was "the untold number of scenes to paint." J.C. was more specific, identifying Upper Beaver Meadows as his own favorite place. B.S., with the mind of a scientist and the heart of a philosopher, said the Best Kept Secret was the combination of climate and scenery found here. That comment triggered a brief, but friendly, debate about wind and wintertime in the Rockies.

Sounding much like an artist, E.S. said simply, "Early morning clouds." Building on his spouse's theme, G.S. added "Alpine glow."

As the conversation moved around the circle, our group's Best Kept Secrets grew larger in scope. "The tundra," said S.K. Nearby sat K.K., pensive at first, but then adding, "The sky." That comment might have sparked T.A.'s effusive observation, "The Park is one big scene that constantly changes." S.P. acknowledged her affection for the night sky, saying, "The stars."

"I know this isn't really much of a secret," smiled S.S., straying from the rules of the game, "but I think Alberta Falls is pretty special. So are all the trails." Everyone agreed.

M.C. turned the focus to "Wildlife." "This park is just perfect for wildlife sightings," he explained, with others chiming in, offering quick comments about moose and beaver. Another specific place was named by J.K., "This is not exactly secret either," he said, hike here almost all year around." Perhaps his comment caused G.F. to say, "Boulder Creek," and not much explanation was needed. Everyone agreed it was lesser-known and assumed it was his favorite trail.

"Hikes to lakes," was H.F.'s Best Kept Secret, although he confessed that maybe too many people already knew that secret. Everyone chuckled. "Wintertime activities," said R.P. rather quickly, "Like cross-country skiing or snowshoeing."

"Birds," said V.P., "and especially hummingbirds. I think they're secretive and not many people look for them." B.K. added, "Along with the subalpine forests, with all its flowers and wildlife."

Each outpouring of Secrets came with explanation, not just the phrases I've recalled. Those ideals reveal more than mere imagination. For what this group was exploring were the realms of enchantment. Here were minds with a wealth of experience, voicing wit and affection, attachment and emotion. Here were people enriched by nature—they themselves a Best Kept Secret – a part of Rocky Mountain National Park that scientific research has largely ignored.

"The difference between landscape and landscape is small," said Emerson, "but there is great difference in the beholders."

Curt Buchholtz is the Executive Director of the Rocky Mountain Nature Association.

"but Endovalley Picnic Area is a very beautiful place and not that many people know about it."

"Winter trails!" said J.F., adding, "People just don't know that you can

New RMNA Publication:



Guide to Trail Ridge Road Brings Depth to Park's Scenic Highway

We are pleased to promote one of the newest publications of the Rocky Mountain Nature Association, the *Guide to Trail Ridge Road*.

The new \$2.00 road guide was developed cooperatively with national park staff to update and expand the .50 cent brochure that has been available in RMNA bookstores for more than 20 years.

Originally written by Chief Park Naturalist Glenn Kaye, this self-guided tour visits 12 marked stops along Trail Ridge Road, North America's highest continuous paved road and one of the most popular features of the park.

This 24-page booklet now features expanded information highlighting the four ecosystems the road travels through, in addition to other sites and areas of interest along the way. More than 75 stunning images of wildlife, wildflowers and scenery illustrate the text, many of which were donated by RMNA Members and RMNA supporters. Informative sidebars also provide answers to many of the questions travelers frequently ask park rangers.

Packed with information and images, this is a great deal for your dollar - and a quick reference you'll want to keep on hand. Available in RMNA bookstores at park visitor centers, or online at www.rmna.org, or call 800-816-7662 ext. 17 to order your copy today!

www.rmna.org

Cover photo credits

Cover photos (clockwise from lower left to upper right): "North Longs Peak Trail Vista," by RMNA Member Betty Neale, Estes Park, CO; "Brilliance in Snow," by RMNA Member Gene Putney, Longmonr, CO; "'Grace Falls" by RMNA Member Betty Neale, Estes Park, CO. Please send photos or high resolution scans to nancy.wilson@rmna.org by March 1 for publication in the 2011 Spring *Quarterly*.

Photos are always appreciated! Scenery, wildlife and wildflowers greatly enhance this publication so take a hike and carry your camera with you! Think simple and high contrast for best reproduction results. Thank You!

Ask Nancy

[RMNA Quarterly Editor Nancy Wilson will attempt to unearth answers to any questions asked by RMNA members and park visitors. If you are curious about something in or about the park, write: Nancy Wilson, RMNA, PO Box 3100, Estes Park, CO 80517. Or email her at nancy.wilson@rmna.org]

What is the current status of mountain lion in the park and is there any research being conducted? No mountain lion research is being conducted specific to Rocky, but a large-scale project is being conducted along the Front Range by Mat Aldredge of the Colorado Division of Wildlife (http://wildlife.state.co.us/Research/ Mammal) which should provide valuable information on how mountain lions and humans interact, and how we can ensure those interactions minimize risks to both *Puma concolor* and *Homo sapiens*. It's likely (Ask Nancy: Mountain Lion continued on p. 5)

With all the fatalities that occurred on Longs Peak this past summer, does the park have any plans to address this concern, and if so, what are they? Per National Park Service Policy, RMNP is required to convene a "Board of Review" after each visitor fatality. The primary purpose of the Board is to examine and evaluate all of the available facts relating to the accident to determine causal factors contributing to the mishap and to recommend actions (e.g. policies, procedures) to prevent recurrences. Usually, there is little if anything the NPS can do to prevent recurrences, as most fatalities are accidents that involve circumstances and/or individual decisions over which we have no control. While looking for "correctable opportunities," however, we often focus on the safety information that we currently provide to the public. For example, we offer information on hazards and suggested mitigations on trailhead bulletin boards, in the park newspaper, in the RMNA Guide, via our new podcast on climbing the Keyhole route, on (Ask Nancy: Longs Peak continued on p. 11)

I understand that the combination of blister rust and mountain bark beetle are threats to limber pine in Rocky. Will you please explain how a packet such as the one attached to the "high value" limber pine at the east end of Dream Lake plays a role in defense against these threats? The pouch you see attached to the limber pine at Dream Lake is called verbenone. As you know, mountain pine beetles are having a great impact on limber pine as well as lodgepole and ponderosa pines at a level never seen before in the history of the park. Limber pine are particularly vulnerable due to low populations, slow growth (some are over 1,000 years old) and also because of attacks by an exotic rust called white pine blister rust. Because of the possibility of losing this important species, park staff, *(Ask Nancy: Hormone Pouches continued on p. 11)*

What is the time frame of recovery of the west side forest ecosystem after the beetle kill devastation in the Kawuneeche Valley? How long will it take for the dead trees to fall? Although the effects of the recent mountain pine beetle outbreak could be considered devastating to the lodgepole overstory (i.e. mature trees) in the Kawuneeche Valley, I shy away from calling it 'devastation'. Ultimately, it is probably more useful to focus on the new regeneration already occurring in areas affected by the mountain pine beetle, rather than the long term recovery to achieve the previous mature lodgepole community, which would be between 80-150 years.

Generally, lodgepole pine forests experience cycles of growth, maturity and (Ask Nancy: Forest Recovery continued on p. 15)

by Nina Dutton and Mike Lewelling

June 24, 2010 promised to be an exciting day in Rocky Mountain National Park. It was the start of a new Junior Ranger Firefighter program, a collaboration between the Interpretation Division and the Fire Branch, years in the making. It was also the day that the Cow Creek Fire was found, a fire larger in size than the park has seen in decades. The excitement was just about to begin!

The Cow Creek fire was started by a lightning storm that had passed north of the Lumpy Ridge area about two

weeks prior to the fire being reported. The small fire remained subdued until it reached enough burnable material, or fuel, to create smoke. This natural event happens fairly often in our forests: small fires are ignited by lightning, nearby fuel is consumed, and the fire goes out entirely on its own with no one ever knowing a fire existed. This particular fire burned quietly for two weeks, and then it suddenly got bigger, quickly.

The Cow Creek fire grew rapidly for a number of reasons: it started during the heat of summer in a remote and inaccessible area of the park that has not seen fire for nearly 370 years. Due to the seclusion and terrain of the area, the initial discovery of the fire was delayed and subsequent response was challenging. Once the fire was located (which was actually in the West Creek drainage) the



Steep slopes, remote location, densely wooded areas and downed material made firefighting difficult.





lack of access played a significant role in decisions about how to manage the fire. The response to this fire was swift: firefighters from numerous federal agencies, smokejumpers, aircraft retardant drops, helicopters, state employees, volunteer firefighters, city fire department personnel and others came to assist. Many stores and restaurants donated food and water to the effort.

Initially, the park responded to the fire very aggressively, trying to suppress it, with a number of personnel on site at the end of the day to evaluate and suggest methods for managing the fire. The area was studied for potential fire movement based on terrain, slope, burnable materials, incoming weather, and many other factors, and decisions about how to fight the fire were re-evaluated. Firefighter safety and protecting the community of Glen Haven became the primary goals, which meant creating a barrier to the east of the fire to try to limit the growth of the fire toward the town.

The fire spread rapidly. On July 3 it had burned 916 acres but was contained on the northeast, east and southern portions. The immediate threat to the area on the park's eastern boundary was mitigated; however, there was potential for the fire to spread to the west, deeper into the park. It was expected that the fire would likely burn through the remainder of the fire season with the potential of visible smoke until a significant weather event, such as an autumn snow, put the fire out.

While the Cow Creek fire quieted down during July and August, it still was not out in September. Smoke rose again September 1 and the fire burned another 137 acres, but with tundra to the north and west of the smoking material and a solid burned area to the east. the western line of the fire was monitored and managed naturally. Fire continued to burn with resulting smoke until the the Cow Creek fire was officially declared out on December 8.

From a fire management perspective, the Cow Creek fire is a perfect example of the dilemma we face today. Fire has a very important natural role in our ecosystem. Individual plants, entire forests, and many species of animals have evolved alongside fire for thousands of years. Many species are dependent on fire to clear understory, restore nutrients and create new browse for food. Fires that have burned in the past also create areas that can serve as natural fire breaks to slow a new fire down while creating a distinctly different habitat within a larger area. With fire being a necessary part of our ecosystem, how do we let it return to its natural role in our forests while keeping our firefighters and surrounding communities safe? Which risks are

(Cow Creek Fire continued on page 9)



Wildland firefighting requires many skills: mapping, weather monitoring, leadership and physical fitness, to name a few.

Managing the Effects of Mountain Pine Beetle in RMNP

by Chris Dahl, RMNP Forester

Beginning in about 2002, visitors to the western side of Rocky Mountain National Park began seeing evidence of what has become an unprecedented outbreak of mountain pine beetle. Today on the west side, red and grey trees now blanket the mountains in huge swaths. The east side of the park is chronologically behind the west side, and still exhibits distinct areas of impact, but each year the areas grow bigger and begin to merge into larger patches. What the final beetle kill layout will reveal depends greatly on the level of

species diversity, but it's likely the east side's mosaic will segue into a more uniform distribution of red and dead trees, similar to the west side.

While these beetles are native to the area and have been active on a low level for many years, the scale of the current outbreak is a major deviation. This variation can most likely be attributed to a few specific factors, including years of drought, large areas of mature lodgepole pine forests, warmer winters and a practice of long-term fire suppression in the park and in other public lands areas. As a result, native mountain pine beetle populations have increased throughout areas of the Rocky Mountain U.S. and Canada, and by the autumn of 2009, approximately 67% of the forested areas within the park had been affected by the beetles.

Since 2005, the park has

implemented an adaptive, proactive bark beetle management program, focusing on mitigating hazard trees to protect life and property and protecting high-value trees and resources. This adaptive program has included the addition of personnel, protocol and equipment for monitoring and identifying hazard trees at more than 400 high visitor-use near park facilities such as campgrounds, parking lots, housing areas, trailheads and visitor centers. Each site is assessed annually for hazard trees and plans are developed and prioritized for appropriate hazard mitigation. Another management objective is to carefully and selectively use the insecticide Carbaryl to potentially protect up to 5,000 high-value trees from bark beetle infestation.

Management activities involve a variety of personnel in the park, ranging from forestry and fire crews to contractors, revegetation specialists and the public information office. Safety and resource protection are at the forefront of managers' minds. As a result of the high tree mortality and subsequent risks of falling trees, large-scale tree removals have been conducted and can be seen in areas such as the Timber Creek and Glacier Basin campgrounds. For many visitors,

> this seems drastic, but the safety of park visitors is one of the highest priorities of park managers. Material removed has been utilized when possible in park trails and facilities projects, for firewood, and taken to local processing sites or mills.

As effects of the outbreak continue to unfold on the eastern side of the park, allow us to present an alternative outlook to the prevailing attitude of devastation or gloom that is becoming increasingly widespread. To begin with, the current beetle outbreak has provided many opportunities for collaboration with other agencies and researchers. New questions have arisen and lessons learned may be utilized to identify ways to

protect sensitive species and minimize the potential for future outbreaks of this magnitude.





Timber Creek (above) and Glacier Basin (below) campgrounds in 2010.

And there's no question that in looking past the shades of red and grey, one can already find evidence that nature is resetting the clock in many areas. Fresh aspen growth and lodgepole pine seedlings are already growing in many affected areas of the park and new tree seedlings and plants are beginning to fill in the gaps. In addition, in many ways, beetle-killed trees benefit the ecosystem. Standing dead trees provide habitat for woodpeckers and other cavity nesting birds. Downed trees make homes for many small animals. It's true – appearances of forested landscapes throughout the park have changed - yet another reminder of the dynamic environment in which we live, work and play.

(Ask Nancy: Mountain Lion, continued) that some of the radio-collared animals from the study will wander into our vicinity, especially on the east side of the park.

In addition, a non-profit organization, Rocky Mountain Cat Conservancy (www.catconservancy.org) has been active in the Estes Valley for several years, and works with high school students on mountain lion conservation and education projects, including monitoring lions through the use of trail cameras (the website has some of their photos).

Although we have no research-based population estimate for the park, it wouldn't be surprising if 20 to 30 mountain lion use the park as at least part of their 50 to 150 square-mile home ranges. The general consensus among many wildlife professionals is that mountain lion populations are stable to increasing in Colorado and in most occupied areas of the U.S.

If you happen to be one of the very few folks who see a mountain lion in the park, or come across a predation site (mountain lions cover their kills with twigs, leaves and soil), please let the park Information Office know at 586-1206.—*RMNP Biologist Gary C. Miller*



The park has used Carbaryl as one method of protecting high value trees,



The Next Generation Fund campaign funded a number of environmental education interns this last year.



Trail Ridge Road now sports the newly resurfaced look of a well-tended highway. Construction is complete!



A private airplane crashed in Forest Canyon this summer.



American Recovery and Reinvestment Act funds funded the replacement of the deteriorated boardwalk at Many Parks Curve.

From Behind the Scenes Efforts to Major High Profile Incidents: ANOTHER BUSY YEAR IN ROCKY MOUNTAIN NATIONAL PARK

by Kyle Patterson

Rocky Mountain National Park celebrated its 95th birthday this year. On January 26, 1915, President Woodrow Wilson signed the act establishing Rocky Mountain National Park. This culminated an effort by many in Colorado and elsewhere to set aside a scenic portion of the southern Rockies for the enjoyment of present and future generations. Since that time, Rocky Mountain National Park has evolved into one of Colorado's major tourist destinations. People from all over the United States and the world come to experience this scenic wonderland.

In March, Rocky also celebrated the one year anniversary of the park's wilderness designation. The 2010 Lyceum program, for which the Rocky Mountain Nature Association (RMNA) provided financial support, focused on how wilderness influences what we do as stewards of this incredible national park.

In May, Rocky Mountain National Park was named the Number 2 Outdoor & Adventure Destination in the World on Trip Advisor, a popular travel website. It was the only location in the United States in their top ten list.

The park's Elk and Vegetation Management Plan continued its second year of implementation. It relies on a variety of conservation tools including fencing, elk redistribution, vegetation restoration and culling.

A major resurfacing project took place this summer and early fall on a 19-mile section of Trail Ridge Road from the Colorado River Trailhead to Rainbow Curve. This project also involved resurfacing all major overlook parking areas, pull-offs and the parking lot at the Alpine Visitor Center. The project was scheduled to take place during two summers but the project was completed a year ahead of schedule and within budget (\$17.2 million). Major work has occurred on Trail Ridge Road for three of the past four years. All aspects of the construction have been funded by gas taxes through the Federal Lands Highway Program for a total of \$34.2 million. It is the first major work on the road since it was built in 1932. Starting next spring, there will be many more decades to come without construction delays on Trail Ridge Road.

Rocky Mountain National Park's Biennial Research Conference was held in March. The park hosts one of the largest research programs in the National Park System, with more than 100 research permits active each year. This year's conference was the highest attended with over one hundred scientists, social scientists, historians and the public discussing a variety of research projects.

Bark beetles continue to be active within Rocky Mountain National Park, impacting large numbers of conifer trees. The park's priorities for mitigation of the effects of beetles are focused on removing hazard trees and hazard fuels related to the protection of life and property. For several years, Rocky Mountain National Park has had a proactive bark beetle management program. In 2010, the park continued its mitigation efforts, including spraying, removal of hazard trees, prescribed burns, utilizing the air curtain burner, pheromone treatments and implementing temporary closures in a variety of park locations. (See article on page 5)

The park received more than \$2.5 million in American Recovery and Reinvestment Act funds. Funded projects included: eliminating hazardous trees killed by mountain pine beetles in high use areas; realigning segments of the Continental Divide Trail; replacing numerous footbridges on trails throughout the park; rehabilitating the Alpine Visitor Center Trail; replacing the deteriorated boardwalk at Many Parks Curve; replacing failing sewer lines and resurfacing roads in Glacier Basin and Timber Creek campgrounds.

Numerous high profile incidents in the park kept park staff extremely busy this year. The Cow Creek Fire started in late June *(see article on page 4)* and the Onahu Fire occurred on September 18. There were many challenging rescues including a small plane crash with two survivors in Forest Canyon and an overnight rescue of a technical climber on Longs Peak. Sadly, there were seven fatalities in the park this year, six of which were falling fatalities.

Donated RMNA contributions funded the Haiyaha to Alberta Falls trail work segment. This was the second year of the project, with work completed this year by volunteers, park trail crews and RMNA's American Conservation Corp.

The Next Generation Fund, a parkapproved fund raising effort spear-headed by RMNA, provided tremendous support

to youth programs this year. The Junior Ranger program was so popular the park nearly ran out of supplies in August! The Environmental and Outreach Education program remains strong, serving approximately 12,000 youth and families annually. Fourteen students and recent graduates served as interns working alongside professional park interpreters and educators to explore career opportunities. Truly, the continued financial support of park supporters has made a difference in increasing and improving learning opportunities for youth.

These are the highlights of 2010 from an overall park perspective, but there's no way to acknowledge the number of park visitors that found their highlights along the trails, or with family gatherings, or



Prescribed burning in Beaver Meadows

wildlife viewing. It's safe to assume that these experiences are prolific! Make a trip to Rocky and create your own highlights in this amazing park!

Kyle Patterson is the RMNP Public Information Officer

Park Puzzler by RMNA Member Joel Kaplow

ACROSS

- The volcano-shaped mountain to the west of Twin Sisters Peaks is _____ Cone
 If the current list of RMNA Field Seminars doesn't float your boat, RMNA
- will create seminars tailored to your specifications
- 6. During peak season, the Park has a seven-night stay limit for campers that's extended to nights between October to May

7. ____ Mountain is found between Mts. Cirrus and Cumulus in the Never Summer Range

8. Due to a limited drinking water supply, Park guests are encouraged to fill reusable containers at any of the _____ centers

10. The _____ is a stretch of the route up Longs between the Keyhole and the Trough

14. The Grand Ditch collects water draining off the Never Summers and

channels it into ____ Reservoir just across Continental Divide on the Atlantic side 16. Appropriately named, Lake of the ____ is found under Mt. Cirrus on the Park's west side

18. The _____ is a segment of Longs Peak's Keyhole route that connects the top of the Trough with the bottom of the Homestretch

19. Completed in 1920, ____ Road was the first route in the Park that enabled visitors to drive up to the tundra (2 wds.)

20. Considered to be RMNP's most troublesome weed, invasive Canadian is being sprayed with herbicide on the east side of the Park

Down

2. Name the snowfield near the Keyhole on Longs Peak that resembles a bird in flight (2 wds.)

- 3. The high point on Trail Ridge Road (12,183') is located near the summit of _____ Mountain
- 4. Boulder-Grand Pass is named such not because it is strewn with boulders and looks "grand," but because it's where those two _____ meet

5. When viewed from Denver, what most folks call Longs Peak is actually massive Mt. ____, with only Longs Peak's summit block barely visible behind its apex

9. How many years has Curt Buchholtz been with RMNA?

11. "Giardia" is not a disease, but a genus of parasitic microorganisms that cause the disease called ____, known to give its sufferers that "get up and go" feeling for weeks - always treat your stream water!
12. With its numerous field seminars, the RMNA thinks of the Park as

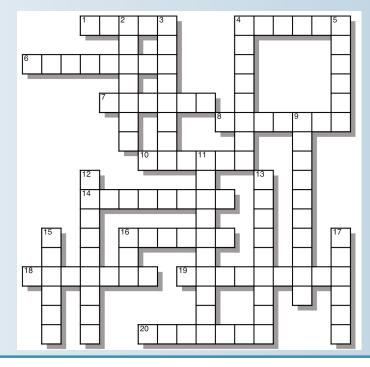
a "____ without walls"

13. RMNP is home to the world's fastest bird, the _____ falcon, which can dive at over 200 mph and feeds exclusively on other birds

15. Studies in the Park indicate that when elk graze on willows, thus shortening their stalks, it can cause a decline in the local _____ population if they both inhabit the same area

16. Lightning caused the ____ Creek fire which burned almost 1,000 acres north of Lumpy Ridge last June

17. _____ are allowed to "hoof it" on 260 of the 350 miles of RMNP's hiking trails





by Heidi Buchholtz

If any office in Rocky Mountain National Park could be compared to a beehive, without a doubt it would be that of RMNP Volunteer Program Coordinator, Kathleen Kelly. This year alone, 1,699 volunteers put in 102,240 hours of volunteer labor. We salute you, Queen Bee, and all of your priceless volunteer bees!

Kathleen had a wonderfully varied Park Service career before landing here in Rocky, and she attributes much of it to what she calls the "poof factor" – in other words, being at the right place at the right time. A career with the Park Service wasn't even on her radar when she graduated with a BA in political science and a BS in news editorial journalism from the University of Illinois. She went right to work at the *Quad City Times*.

But while in grad school in environmental studies at Northwestern University, she was the recipient of an Student Conservation Association (SCA) internship at Shenandoah National Park, working as a resource assistant in interpretation. After that first summer, she was hired as a seasonal at Shenandoah and remained there for three more summers.

Over the course of the next several years, numerous NPS seasonal opportunities included working as a volunteers in resource management at Indiana Dunes, at Isle Royale for two summers, San Antonio Missions for a winter in administration, two winters at the Arizona Memorial, Acadia for a summer, Everglades for a winter, and Denali for a summer with visitor protection services. All of this during which Kathleen completed her masters degree. *<Whew!*>

RMNP Volunteer Office: A Hive of Constant Activity Meet Kathleen Kelly, the Queen Bee, Herself!

Kathleen's first permanent NPS job was at the Chesapeake and Ohio Canal National Historic Park (C & O Canal.) She worked in interpretation in what she calls "a unique way to make a living," overseeing a living history program from the 1870's complete with mules pulling a replica canal boat. She not only handled the mules but also worked the boats, the lift lock and gave history programs on the boat.

One of the more unusual examples of the "poof factor" in Kathleen's life was when she became an historic weapons inspector. Though not an obvious fit for her, she is now an authority on something she never would have guessed she'd have an interest. Another opportunity that presented itself outside her expected realm was the opportunity to become the website manager at C & O.

After six years of working mules, Rocky announced a job opening in the volunteer office with the added duties of website management. Kathleen had been hoping to get west to the Rockies, and loves the challenge of an office where "the in-box is never empty."

Kathleen works directly with park supervisors to match project needs with volunteer talents and interests. Keeping track of people, records and hours is part and parcel of the job, and when the year comes to a close her office puts on a volunteer appreciation event.

Volunteer opportunities in the park are widely varied, but with three million visitors to the park, much of the work deals with visitors. In total, volunteers fill more than a hundred roles and do everything except fee collection and law enforcement. They oversee sledding at Hidden Valley, greet visitors at trailheads, pull invasive plants, and even look for slime molds. "The breadth of what the volunteers do in this park is pretty amazing," Kathleen said. About one-half of the volunteers are local, and the rest are "episodic volunteers" that come for a one-time visit for a specific purpose, such as school groups, churches, service organizations, Boy Scouts and Girl Scouts.

To keep this bee hive humming, Kathleen has a full-time seasonal assistant, Flo Bielat. In addition, an intern helps with data entry and two volunteers perform database work as well. During the summers, a total of six to seven volunteers help run the volunteer program. "How wonderful is that?" Kathleen asks.

The park website has approximately 2,300 pages, and managing all the information could be a full-time job in itself. Deleting old online brochures, papers, reports, etc. and plugging in the newest versions requires endless vigilance – updating is endless. Also posted on the website are the ranger programs, certain press releases, and a myriad of other news items and reports. For instance, one can find a section on forest health, updates on the Hot Shot crew, or a weekly report on Longs Peak. Every national park uses a website template with standard, recognizable graphics and a similar format so that an online visitor can easily peruse the site. Each park's content is, of course, very unique.

In keeping with her current vocation, Kathleen is a volunteer herself. Every week she goes to the bunny rescue in Broomfield. "I can't volunteer at work so I volunteer there." She keeps a cat and four rabbits of her own. "The first two bunnies were given to me by a friend who threatened to eat them otherwise," she said. In what free time she has, Kathleen likes to read, watch movies and go hiking. Her favorite hike is Mills Lake.

So, if you encounter Kathleen on a hike to Mill's Lake, be sure to stop and say hi - and let her fill you in on the exciting volunteer opportunities that might be up your alley!.



LET'S TAKE A HIKE!

As Members of the Rocky Mountain Nature Association, we know the tranquility and excitement that are the rewards of hiking in Rocky Mountain National Park. How can one forget the rush of cresting a hill to view a crystal clear lake lying like a jewel amidst the rocky terrain. Or the satisfaction of reaching a goal and soaking in the sun at the long-awaited destination. Or the simplicity of a solitary pink wildflower on the banks of a meandering stream. For all of us, Rocky Mountain National Park holds a special place in our hearts.

Join Membership Manager Curtis Carman, and special park guests, for monthly hikes in Rocky Mountain National Park throughout the year!

This free hiking series was designed to give RMNA Members the opportunity to hike to various sites in Rocky Mountain National Park with a group of like-minded individuals while learning more about RMNA, RMNP, and each other. Limited to 15 people per hike, outings will explore a different area in Rocky Mountain National Park each month. Come with your questions about current RMNA projects, park management issues and natural history.

> To sign up for a hike, call Curtis Carman at (970) 586-0108 Or, email him at curtis.carman@rmna.org.

Winter Dates:

January 21- Emerald Lake February 18- The Loch March 25- Glacier Creek Trail to Sprague Lake

ATTENTION ROCKY MOUNTAIN KIDS' CLUB MEMBERS!

We are llooking forward to a New! and Improved! Rocky Mountain Kids' Club newsletter! Beginning in January, 2011, all Kids' Club Members will receive the newsletter four times a year, instead of monthly. BUT – the new format will be expanded to include additional features highlighting Rocky Mountain National Park, including:

Six full pages! More games! New activities! And much more!

If you have questions or comments please call Membership Manager Curtis Carman at (970) 586-0108, or email him at curtis.carman@rmna.org





New aspen seedlings were already sprouting in the wake of the Cow Creek Fire at the end of the summer.

(Cow Creek Fire continued from p.4)

acceptable and what inconveniences are we willing to accept to allow fire to return to a more natural role? Is a small amount of smoke acceptable?

These tough and often controversial questions confront fire managers in all agencies and concern neighboring communities. With the uncertainty of climate change and the adverse effects of beetle-killed trees, the potential for larger fires exists in the future.

The fire activity this summer is a good reminder to take the necessary precautions to protect our homes. More information on preparing for a wildfire can be found at www.firewise.org.

Nina Dutton is the RMNP Fire Business & Budget Manager and Mike Lewelling is the Fire Manager for RMNP.

AN ENVIRONMENTAL CHALLENGE: Elk Management in RMNP

by Park Ranger Lori Romeand RMNP Information Officer Kyle Patterson

Rocky Mountain National Park was established by Congress in 1915, in part for the preservation of its diverse wildlife and habitats. Today, preservation is facing challenges. The ecological balance of the park has many variables, but one of the primary threats to its equilibrium is, paradoxically, one of its native species – elk. Though a natural component of the park, elk are increasing in population numbers beyond the environmental capacity, unintentionally damaging the ecosystem that many species depend upon for survival. Restoration of a balanced elk population and ecosystem will take time and a significant amount of work.

The story of elk in Rocky is complicated. Before major settlement, native elk shared the environment with numerous species, including a variety of predators that helped maintain ecological balance. By the 1880s, elk were extirpated from the Estes Park valley, primarily from overhunting. Bison, grizzly bear and wolf were extirpated shortly thereafter. In 1913, elk were reintroduced from native populations in Yellowstone, hunting was banned and elk flourished, increasing in the first two decades from 530 to 350 animals. By 1930, the elk population had grown to a point that the ecosystem was showing signs of deterioration. In 1943 the National Park Service (NPS) created the first elk and deer management plan in response to growing concerns. To control overpopulation, lethal reduction of elk as well as live trapping followed by relocation to areas outside the park, occurred intermittently from 1944 through 1962, ceasing in 1968. Beginning in 1969 the population was allowed to grow without any management controls, and by 2001 more than 3,000 elk resided in the winter range of the Estes Valley area.

Without significant natural predators, unmanaged elk populations are destructive to

the ecosystem. With greater numbers and concentrations of elk and less migratory behavior, vegetation suffers in both winter and summer ranges – and the effects are rippling. With constant elk herbivory, seedling survival of montane riparian willow is almost non-existent, so new young plants are not available to replace older plants as they die. Intense herbivory changes the character of willow communities from one of tall, robust shrubs to one of small, hedged bushes. With fewer tall willows, the park's winter elk range has seen a 90% decrease in beaver activity which contributes to a large decrease in surface water, which in turn inhibits the water-loving willow's survivability. Elk can also limit aspen cloning (the replacement of older aspen by young sprouts). Research consistently shows that continued high elk densities could result in a complete loss of aspen trees on the winter range. Herbaceous plant communities are also being altered by the high consumption rates, causing other plants and animals to be deprived of important habitat.

The 2007 Elk and Vegetation Management Plan Final Environmental Impact Statement is the result of seven years of research and four years of interagency planning and public input. A preferred alternative was selected and a record of decision was signed in 2008, followed by the beginning phase of implementation. Lethal reduction, or culling, of elk within the National Park by NPS lead teams consisting of qualified volunteers, as well as Colorado Division of Wildlife staff, is being used to reach and maintain a target population of 1,600 to 2,100 elk, with 600-800 elk using the winter range inside the National Park. Another critical management tool has been the installation of exclosure fences to keep elk out of selected areas of protected aspen and riparian willow in order to promote restoration in these habitats. Surprising to visitors in a national park context, the fences

are 6'4" tall, high enough to keep elk out while allowing smaller animals to enter under the 16" gap at the bottom, and with gates for human entry.

In 2009, the park lethally removed 33 elk (13 from culling, 20 in support of research to understand Chronic Wasting Disease (CWD)) and 48 elk in 2010 (23 from culling, 25 in support of CWD research). CDOW is using a lottery system for meat disbursement.

Each fall since 2008, exclosure fences have been installed in areas in the elk winter ranges, including Moraine Park, Beaver Meadows and Horseshoe Park. While unsightly to many, these fences are important management tools allowing for the restoration of important riparian willow habitat for a variety of plant and animal species. Of the 3,400 acres of open habitat types in the montane elk winter range in the park, 1454 acres of willow habitat and 486 acres of aspen have been protected within fences. This represents 5% of these habitats and just over half of the 365 acres that can be protected on the east side of the park as part of the implementation of the management plan. In response to research and public input, the decision to construct more exclosure fences ultimately reduces the culling numbers of elk. Fences are temporary and vegetation conditions will be assessed every 5 years to evaluate how well management objectives are being met, and to determine when fences can be removed.

Elk and vegetation management will continue to be a challenge for Rocky – long into the future. Changing conditions in the environment and climate will require continued research and adaptive management for the park – and continued cooperation of all stakeholders to bring balance back to the ecosystem for the future.

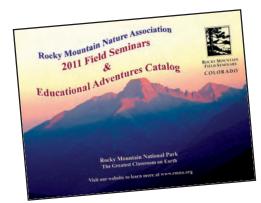
http://www.nps.gov/romo/parkmgmt/elkveget ation.htm

References:

RMNP, Final Elk and Vegetation Management Plan/Environmental Impact Statement, Dec. 2007 RMNP Continental Divide Research Learning Center, Project Summaries RMNP, Elk and Vegetation Mgt Plan, Feb 2010 RMNP, Public Affairs update, Nov 2010



Photo: Dean Martinson



The Rocky Mountain Field Seminars catalog is out and in the mail! Our goal is for all of our participants, young and old, to experience Rocky in a new way. Check out some of the new programs for 2011:

Winter Ecology: A Snowshoeing Trek for Families will be held January 22; February 5, 19; and March 5, 19 in 2011. Participants can discover the serene beauty of RMNP in the winter on this four-hour snowshoe hike. This fun and educational program will lead participants through snow-covered pine, spruce and fir trees to learn how plants and animals survive winter using their unique adaptations and keen survival skills. Students also will learn more about the properties of snow and how it can help flora and fauna survive the long winter months. Snowshoes are provided for kids 13 and younger, and all children under the age of 5 participate for free.

ROCKY MOUNTAIN FIELD SEMINARS: NEW OFFERINGS TO ENTICE NEW AUDIENCES

Campfire Ghost Stories: Living History Tales of the West will be offered on June 23, 30 and July 7 and 14. Each evening will feature a different living history character such as Enos Mills, Iron Thumb (fur trapper), Abner Sprague and Isabella Bird. These hour-long presentations about the history and adventures of these past residents and visitors to Estes Valley will end with time for questions and roasting marshmallows around a campfire, compliments of RMNA. Listen in as these characters recount tales of humor, exploration and danger; learn what life was like for them during their stay in and around Rocky Mountain National Park.

A children's overnight educational experience, *Jr. Naturalist Camp: A Birding Adventure* will be held from June 16-18 at the YMCA of the Rockies. Kids will enjoy learning about RMNP's birds during this three-day two-night camp which will include bird identification and behavior, habitat exploration, interactive games, hiking and other fun activities. Kids will spend evenings listening for owls, enjoying a campfire and relaxing with new friends. Daytime activities will include excursions into Rocky Mountain National Park to look for birds like warblers, hummingbirds and eagles. This course is perfect for the beginning birder, so kids, bring your binoculars and join in the fun!

Visit our website at <u>www.rmna.org</u> or call 970-586-3262 for more information. Our 2011 Field Seminar brochure will be in mailboxes soon, offering exciting classes for 2011. We look forward to seeing you on an educational adventure soon!!!



(Ask Nancy: Longs Peak, continued)

backcountry permits, during interpretive programs and in ranger stations. We also acknowledge that, increasingly, visitors are obtaining information from sources over which the park has no control, such as websites and guidebooks. Unfortunately, some of this information is not always the best, or even accurate.

We have already convened a BOR for our first five fatalities. Specific to the two fatalities on the Keyhole Route, we have put together a working group to examine our safety information more closely and provide specific recommendations on changes that might provide more accurate information that better manages user expectations. Part of this exercise has included consultation with the DOI Solicitor's Office to obtain input from a legal "duty to warn" perspective.

Again, our desire is to do the best job we can to provide appropriate and accurate information to park users. "Safety is your responsibility" is among these messages and, ultimately, this is where it matters most. What users do with the information that is provided is up to them.—*RMNP Chief Ranger, Mark Magnuson*

(Ask Nancy: Hormone Pouches, continued)

in collaboration with USFS staff, is developing a long term sustainability plan that involves protecting some trees from beetle attack to act as a seed source and to find out if some of the park trees have resistance to white pine blister rust. We presently are conducting genetic analysis from seed collected from the trees with the pouches.

The pouch contains a pheromone that was developed from the pheromone emitted by beetles when they attack a tree. Females first emit a pheromone that attracts males to a tree so they can mate. Once the females burrow into the tree and start laying eggs they emit another type of pheronone to keep other beetles away. The pheromone verbenone is a type of biological control that does not kill the beetles like an insecticide would, but instead, fools the beetles into avoiding the tree to which the pouch is attached.—*RMNP Resources Management Specialist Jeff Connor*



The Rocky Mountain National Park Fund expresses special thanks to the following people for their generous donations to Rocky Mountain National Park projects:

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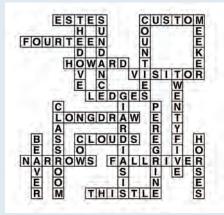
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(Ask Nancy: Forest Recovery, continued)

disturbance. Normally, an event such as a large fire would be the factor that restarts this process. The current mountain pine beetle outbreak is likely a result of a combination of events including: fire suppression, several years of drought, and large contiguous areas of even-aged, mature lodgepole forests. While we naturally tend to view things through the time frame of human years, this occurrence has changed many areas of the region such that they will not recover to their most recent state during any of our lifetimes. However, as we are already observing, many areas are experiencing new seedling regeneration and the cycle begins again.

Additionally, it has been documented that tree fall rates begin to increase approximately 3 years after death and continue until the majority have fallen by around 10-11 years after death.—*Chris Dahl, Forester*





For comments or questions contact: **Curt Buchholtz, Executive Director** Nancy Wilson, Quarterly Editor



This gives new meaning to being "all ears," doesn't it? Photo: RMNA Member Jack Glover

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Nature Association Notes...

A welcome snow storm graced the park in time for the holidays, the clouds socking in the whole park and obscuring the surrounding peaks. There's a healthy 42 inches of snow at Bear Lake at this moment, with some pretty respectable sledding happening at Hidden Valley.....In mid-September, while hiking up to Pagoda Mountain from Glacier Gorge, park visitor Robert Stephenson encountered a bull elk at about 7 AM off the trail between Mills and Black lakes. The elk eyed Bob as they passed about 20 feet from each other, but the elk didn't seem too concerned with Bob's presence. Later in the day while passing back through the same general area, Bob saw what he assumed to be the same elk. As he continued down the trail the elk charged him. Bob ducked behind a small tree (~10" diameter), but felt fairly safe knowing that the elk wouldn't be able to negotiate around the tree with his sizable rack of antlers. After a moment, the elk retreated and crossed the trail towards a cow that was hanging on the sidelines. Believing himself to be safe once he was no longer between the two, he continued down the trail only to be charged again. This time Bob took shelter behind a much larger tree where the elk had him pinned for several minutes. Bob tried peeking around the tree a couple of times, but each time he did, the elk charged him - from just a couple of feet away. When the elk eventually turned away, Bob dropped down the hill about 50 feet and followed the stream until he was safely past the two elk. Bob noticed that the elk watched him closely, but the elk definitely seemed more comfortable with the greater distance (as was Bob!).....RMNA Member Amy Miller was walking along Fish Creek near the golf course in Estes Park early one morning this fall when she happened to see a mountain lion bounding down the green, probably not chasing a golf ball! It let out quite a ferocious scream as it was running down the hill, stopping at the creek and not crossing over.....Earlier this summer Amy also saw a black bear with two cubs along Fish Creek as well....RMNA Administrative Assistant Heidi Buchholtz



Corrections:

The unusual lizard sighting Nature Note in the Autumn issue of the RMNA newsletter had more than one error: Erin Muths, (not Muth), is actually from the USGS, not CSU. But, most importantly, she wanted to correct that she

did not identify the lizard as a possible earless lizard. Tina Jackson, from the Colorado Division of Wildlife, actually identified it as an eastern fence lizard (according to Hammerson, 1999, a Prairie and Plateau Lizard). Mea culpa -NLW

The saprotrophic fungus image in the Autumn issue of the newsletter actually showed Clavaria purpurea (Purple Fairy Club Mushroom). It was incorrectly identified as Xylaria polymorpha (Dead Man's Fingers.(Our thanks to Linnea Gillman of the



Colorado Mycological Society for her correction.) Mea maxima culpa - NLW

observed some very large round paw prints along Fish Creek, which might very well have been Amy's resident mountain lion.....Heidi also reported a command performance of a 7point bull elk that was frolicking in the snow near the park's entrance. He almost seemed to be dancing for her as he jumped



Wildlife of the humanoid variety enjoying wintertime fun at Sprague Lake. Photo by Norma Andersen

around in front of her car - rather like he was enjoying being out playing in the snow.....On her way home from work one evening in December, RMNP Facility Managment Systems Specialist Debbie Mason spotted a young bull moose going up a road on the west side of the park. When he realized that she was approaching, the moose hopped the large buck-n-rail fence along the snowmobile access trail, crossed the trail, then hopped the rope strung along the other side of the trail and continued on. The fence and rope he hopped over was easily 5 or 6 feet high.....RMNA Board Member Dick Coe was at his kitchen window when he noticed that there was a curious

absence of birds at his bird feeder. Always alert to animal signs, he looked around and spotted a large bird perched on a nearby ponderosa branch. It was a juvenile Sharp-shinned hawk, a raptor which is known to feed on small birds. No wonder the bird activity was stifled!.....RMNP Volunteer Forrest McVicar notes the infrequent sightings of what previously had been thought to be some strange albino turkey along Bear Lake Road. For the record, let it be known that this is actually a Merriam's turkey, though an atypical color, or color phase, with orange and white feathers. Park Biologist Gary C. Miller notes that most of the Merriam's have the normal bronze/black/purple color, so this variation is either a genetic abnormality, or there could, in fact, be some domestic white turkey mixed into the gene pool. It is believed that there are two of these variant colored turkeys in the park It's a brand New Year, full of big plans and resolutions, no doubt. Remember to plan a trip to Rocky Mountain National Park, to refresh your hawk



Juvenile Sharp-shinned Photo by RMNA Member Dick Coe

spirit and become a part of something big and beautiful even if only for a brief moment in time.....