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Learning on the Land

September 2011

www.sjma.org

San Juan Mountains Association - For Lands' Sake!

Welcome to our e-Newsletter!

We hope you enjoy SJMA's newsletter created solely for educators - whether you teach in the classroom or outdoors, this newsletter is for you! In each monthly issue, you will receive helpful information on natural and cultural resources found in the Four Corners area, as well as field and classroom activities to do with your students.


The San Juan Mountains Association is the educational nonprofit partner for San Juan National Forest and Bureau of Land Management. If you received this newsletter and do not wish to continue receiving it, send an "unsubscribe teacher newsletter" email to gabi@sjma.org. If a friend or colleague sees this newsletter and is interested in receiving it, please have them send an email to gabi@sjma.org.

Exciting ELK

It is September again, that transitional month between high summer and deep autumn. Many of nature's wonders also transition during September. One transition is easily noticed in the high country of Colorado. Something is going on with the elk.



The Rut

Elk are more noticeable in the fall because of the rut. This is their mating season. Bull elk can be heard for miles as they bugle. The bugling attracts cow elk and draws other bulls to compete for the cows.  (Click on the speaker to hear elk bugling or go to <http://soundbible.com/957-Elk.html>). It is quite amazing to be up high in the peaceful mountains and hear the bugles echoing across the valleys.

In addition to bugling for the attention of the cows, bulls will also fight. Bulls will lock antlers and engage in impressive battles with each other. An elk's antler rack can grow to four feet long and weigh as much as 40 pounds! Wise bulls are careful not to get hurt. Injury from gouging can lead to death. The loser of a battle will generally cower away before getting injured.

The Rut, continued

Although it is never a good idea to approach a bull elk, they are particularly aggressive during the fall. If a bull threatens you, back away slowly. Face the bull and make eye contact. Make yourself look big. Pick up small children and put them on your shoulders. If he starts to follow you, stop for a moment and then back away in a different direction. If all else fails, climb a tree.

The champions of the rut are generally the biggest bulls of middle age. These bulls have the best fighting techniques and bugling style. Years of practice have contributed to this prowess. The rewards to these bulls are plentiful. They will have a harem of cows, up to 20 or more, with whom they can mate. The cows are generally loyal to one bull.

The losers in the rut, the young and inexperienced and the old and weak, head off together in small groups to suffer through the winter.

Elk in the Winter

The elk settle down once the snows begin to fall. After migrating to lower elevations, the best bulls and their harems settle in as a group. Likewise, the losing bulls stick together, often nearby the harems. There is no time for wasting energy in the winter. Each elk needs to focus its energy on eating, or else it will not live to see the spring.

Winter foods are slim pickings. Snow often covers shrubs and grasses. Elk need to dig down to find this food. Even then, the food lacks nutrients found in the summer. Aspen bark is one of the only green foods found in the winter. Its bark stays green all year.

Travel is also difficult for elk in winter. Despite migration to lower elevations, snow can still be inhibitingly deep. An elk's legs sink deep into the snow until its body rests on the snow's surface. This makes each step incredibly difficult. Many elk have died from exhaustion in deep snow. If travel through deep snow is necessary, the group will try to form a line and walk in each other's prints.

Bulls will also drop their antlers later in the winter. On occasion, one antler will fall off but not the other. Elk have died from problems resulting in the uneven weight on their necks.





This scruffy youngster is losing its winter coat.

Spring thaw

Spring is elk calving season. Cows go off alone to give birth. Within a few weeks, they rejoin the herd. By now, elk of all ages and genders are traveling together in herds of up to 400. The size of the herd helps protect the young from predators. Mother cows are fiercely protective of their calves. Do not get between a cow and calf or approach a lone calf. If the cow shows signs of aggression, heed the advice recommended above for dealing with aggressive bulls.

Elk are also losing their winter coats this time of year. They can look quite scruffy! Just like your pet dog, elk have a winter and summer coat.

For more information on elk through the seasons, check out the Rocky Mountain Elk Foundation at <http://www.rmef.org/AllAboutElk/ElkSeasons/>

Signs of elk

Elk are crepuscular. This means that they are most active at dawn and dusk. They tend to bed down at night and the middle of the day. It is not always easy to see an elk in the wild. Easier and sometimes just as exciting is to look for signs of elk. Here are some tips on what to look for.

Scat

- Elk scat varies slightly according to the moisture content of its diet. Most of the time, the scat is dark brown and in the form of round pellets about one inch in diameter. Some people say the pellets resemble milk duds candies. But don't eat them! If elk are eating food with higher moisture content and more fiber, such as the rich marsh grasses of high summer, the scat will be mushier, and not as well formed.

Tracks

- Elk, like all ungulates, have two toed hooves. The tracks are about 4 ½" long and resemble split hearts. In some prints, dew claws are noticeable. Look for tracks in mud or snow.



An unusual scat specimen

Signs of elk, continued

Beds

- All animals need a place to sleep. Elk bed down in soft, tall vegetation. If grasses and shrubs are not tall enough to obscure them from predators, they will huddle under trees. The beds are noticeable by the matted circles left behind by each animal.

Scratch and bite marks

- Bull elk antlers are maturing during the summer and into fall. They will rub their antlers on the trunks of trees to remove the velvet covering. They also rub the points of their antlers to make the points look whiter. This helps attract mates during the rut. Look on the trunks of larger conifer trees for evidence of all this rubbing. The bark is worn away in a tall oval.
- Elk eat aspen bark when other food is hard to find. Cows also eat the bark after giving birth. The bark contains salicylic acid, the same pain relieving component found in aspirin. The bark will heal up, but black marks are left around the base of the trunk and as high as 6 or 7 feet.
- The most difficult marks to spot are the bite marks left on aspen saplings and other small branches. When the elk eat these, they break off the tips leaving a frayed end.

The San Juan Mountains Association has another Learning on the Land newsletter about elk, as well as deer. Click here for different information. <http://www.sjma.org/whoweare/news/LearningontheLand/LearningontheLand0907.pdf>

Field and Classroom Activities

Find the signs

Head for the hills and look for signs of elk. Hit the trail through groves of aspen or high meadows. Bring binoculars because you may see the animals themselves!

The following ideas are taken from a previous Learning on the land newsletter (<http://www.sjma.org/whoweare/news/LearningontheLand/LearningontheLand0907.pdf>)

Study Antlers

Borrow a variety of antlers from a taxidermist or ask parents to bring in (be careful—these are sharp!). Distinguish between elk antlers and deer antlers. Can you compare to any other antlers or horns? (Moose, bighorn sheep, caribou) Trace the antlers, do measurements to try to guess the size of the animal who wore these antlers. Deer and elk have powerful neck muscles. Have students place on head, and try to maneuver with these awkward appendages. Trace the antlers onto paper.

Make Tracks Outside

Make plaster of Paris tracks, either using a mold (for deer or elk) or finding tracks outside the school classroom. You or your students can also make tracks by requesting the bottom portion of a deer or elk leg from a local taxidermist during this time of year. Talk about where deer would walk and why. Find an area of somewhat moist soil; make tracks with the deer leg; cut a manilla folder into strips and staple it into a circle (for the outside edge of your mold; keep it small); place over the track; spray the track with cooking oil; make the plaster of Paris in a paper cup according to directions; pour it in; level it; let it dry.

Extend the Experience

Rocky Mountain Elk Foundation Education packet - This newsletter is only the tip of the iceberg.

If you would like to know even more about elk, click below.

<http://www.rmef.org/NR/rdonlyres/F8494551-6BB6-4B51-9253-AB44C328E95F/0/>

[Exploring Elk Habits and Habitats.pdf](#)

Kids Discovery Pages about Colorado Wildlife

<http://wildlife.state.co.us/Education/StudentActivities/KidsPage/>

Announcements

Schedule a FREE Field Trip for your Class! Sign up now for springtime field trips to San Juan Public Lands. Trips are free but space is limited. Many subjects can be covered including water ecology. For more information, contact SJMA at 970-385-1256 or gabi@sjma.org

Free Classroom Presentations

Teachers, looking for a way to supplement your science lessons with fun, hands-on activities? SJMA and San Juan Public Lands have teamed up to provide Four Corners teachers with presentations to fulfill your needs.

- Correlated with state standards
- Available for K-5th grade
- Presentations last 30-45 minutes
- Choose from these 4 themes
 - * Tree-mendous Trees
 - * Fire in the Forest
 - * Walk the Walk in the Outdoors
 - * Pumas on Parade

Presentations on other topics may be available upon request. Presentations are geared for one classroom at a time. Contact Gabi Morey 385-1256

Mushroom & Edible Plant Hike - September 10th 1:00pm-5:00pm. North of Durango, Contact [Gabi Morey](#) 970-385-1256

Aspen Hike - September 17 at the Lower Engineer Trail. Led by Larry Eads. Contact [Gabi Morey](#) 970-385-1256

Rock Walk - September 22 - 5:30pm -7:30pm. Horse Gulch & Raider Ridge. Contact [Gabi Morey](#) 970-385-1256

National Public Lands Day - September 24 - Sand Canyon. Contact [Kathe Hayes](#) 970-385-1310

Educators—Become a member of SJMA today and receive a 20% off coupon to our bookstore!

Whether you're a 'formal' K-12 school teacher or a non-formal educator, to receive your 20% off coupon valid at any of SJMA's bookstore locations, simply print this or a future newsletter and bring it and your new membership information in to one of our bookstores (Durango, Pagosa Springs, Bayfield or Dolores).

San Juan Mountains Association has been around since 1988. For 20 years, SJMA has been establishing a legacy of caring for the land. Side by side with our members and volunteers, we are helping to ensure the survival of Southwest Colorado's natural glories for generations to come. SJMA also offers classroom visits, naturalist walks and talks, teacher for-credit workshops, and field trips to public lands. For more information, visit our website at www.sjma.org, or call 970-385-1256.

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