



THE DIPPER

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EVERGREEN AUDUBON NEWSLETTER

www.EvergreenAudubon.org

WREATH SALE REAPS ALMOST \$3,000

The 2015 Wreath Fundraiser was our best ever thanks to loyal customers and the new ones we reached on social media.

The profit on the sale fell just a few dollars short of \$3,000!

Thank you to everyone who purchased a wreath and promoted the sale. Special thanks to my little elves, Barbara Klaus, Melissa Leasia and Syd Hogling, who assisted with delivery, too.

- Marilyn Rhodes

3RD SATURDAY WALK

Join Chuck Aid for our Third-Saturday Bird Walk on Jan. 16 from 7:30 a.m. to noon.

This month we will try to find Rosy-Finches and some of our higher-elevation forest birds.

Bring water and a snack. Meet at the Bergen Park Park-n-Ride at 7:30; we will consolidate ourselves into as few cars as possible.

We will not be walking a lot, but participants should be prepared for the possibility of cold, windy weather.

These walks are for Evergreen Audubon members and their guests. Non-members won't be turned away, but will be encouraged to join Evergreen Audubon.

To reserve a space, please register online by going to www.EvergreenAudubon.org and clicking on the Event Calendar tab.

- Chuck Aid, 303-503-2973
Director of Bird Monitoring

It's not too late to RSVP for banquet

Evergreen Audubon's Annual Banquet will be Friday, Jan. 15, at Mt. Vernon Country Club.

This year there will be no speaker; instead the banquet will feature socializing and award presentations.

Arrival is at 5:30 p.m., when two bartenders will be behind the cash bar and cheese and fruit will be available. The dinner buffet will open at 6:30.

The \$35 buffet menu will feature Medallions of Steak with Brandied Peppercorn Sauce, Boneless Breast of

Chicken with Orange Chipotle Sauce and Tri-Colored Pasta with Chardonnay Creme Sauce.

Accompaniments will include au gratin potatoes, rice pilaf, julienned vegetable medley with snap peas, and an ice cream sundae for dessert..

Reservations must be in by Friday, Jan. 8! (Form on page 8.)

Register at EvergreenAudubon.org or send payment and a completed form (below) to Evergreen Audubon, P.O. Box 523, Evergreen CO 80437.



The photo of a sort-tailed weasel was taken the first week of December at Spruce Mountain Open Space in Larkspur by *Dave Hause*, land management specialist/ranger. See Bird Business on page 4 for more information on our mountain-area weasels.

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Meetings first Thursday, 7 p.m., Church of the Hills, 28628 Buffalo Park Road, Evergreen, except January. Meetings in June, July and August are held at Evergreen Nature Center.

Thanks to the 55 donors who contributed \$5,555 during Colorado Gives Day 2015. This was our highest year ever and exceeded our goal of \$5,000!

For the sixth year in a row, you and other Coloradans showed their passion for Colorado non-profits on Dec. 8. A record number of 123,999 donations amounted to \$28.4 million, an overall 8 percent increase over 2014.

Vanessa and Azalea attended the rally the day before, where Gov. John Hickenlooper proclaimed Dec. 8 Colorado Gives Day. We again put our name in for a \$1,000 raffle prize, but luck was not on our side.

Speaking of records, Marilyn Rhodes sold the most wreaths she ever has in 2015. Way to go, Marilyn. Because of all your efforts, Evergreen Audubon is in a very sound financial position starting off 2016.

Ann Dodson, Kathy Madison, Mendhi Audlin and Vanessa came up with some new sources of revenue that expanded our involvement in the community. Thanks again to Dick Prickett for getting us back in the seat for the Triple Bypass.

We will be sending out 2016 membership renewals and solicitations before at the start of the New Year. The board wants to ensure that you value your membership in Evergreen Audubon, and we continue to ponder ways to provide benefits to our members.

Besides offering free Evergreen Nature Center classes, we will be picking up some of the banquet costs and will not be charging for the annual picnic in 2016.

Speaking of the banquet, be sure to send in your reservations for Friday, Jan. 15, at Mount Vernon Country Club. Like last year we plan to make the event an evening of member celebration.

As announced at the December general meeting, send any photos you would like to share with members. We will not be having a silent auction, but will likely have a small raffle. (We have to take advantage of our state raffle license and my games manager license!)

Lastly, I am happy to report that the Evergreen Park and Recreation District board of directors voted at its November meeting to approve our Use Agreement for the Warming Hut for another five years!

Thanks to the EPRD board and staff for working with us to make Evergreen Nature Center successful. Concurrent with the renewal, we will be updating our strategic plan for the Nature Center and will expand it to cover other activities of Evergreen Audubon.

I hope you had a great holiday season and wish you the best for the coming New Year.

Red Rocks Seeding Project

Since the middle of October, a team of dedicated volunteers from our community has been strategically placing seed at Red Rocks Trading Post to feed our local birds, and for the enjoyment of birders from up and down the Front Range, as well as many out-of-state visitors.

We are asking for your cooperation in not putting seed out unless you are part of the group (approved of by Park Management) that is currently implementing the project.

It is important for you to know that our ability to keep this project going can be taken away at any time.

Over the past year, the city of Denver has transitioned the Trading Post

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Climate change noticeably affects Colorado fisheries

by Ron Belak

“The fishing was better in the good old days. We used to catch 16-inchers all the time at Lost Lake and always limited-out on Trout Creek,” grouched the gray-bearded fisherman.

Anglers hear many stories like these because an ever increasing population is exerting more fishing pressure and leading to the loss of more coldwater habitat. Today, we face another challenge that compounds these problems—climate change.

Climate is the average weather at a given place over a period of many years. Climate change is a noticeable departure from these average conditions. Natural events that can change climate include volcanic eruptions, solar activity and shifts in ocean currents.

In recent years, however, scientists noticed an unusual warming of the earth. The Intergovernmental Panel on Climate Change—an international group of 600 scientists—observed in 2007 that 11 of the last 12 years were the warmest on record since 1850.

In the last 50 years, they reported that the earth’s average temperature increased by about 1 degree Fahrenheit.

While 1 degree is seemingly small, they reported that evidence preserved in glacial ice and tree rings reveal that this is the largest increase in North America for any 50-year period over the last 500 years.

Coincident with this warming was a 22-percent increase in atmospheric carbon dioxide. Carbon dioxide traps heat near the earth’s surface—a phenomenon known as the greenhouse effect.

The IPCC examined thousands of scientific studies and concluded that greenhouse gases from man’s burning of fossil fuels caused most of the global warming since 1950.

Regardless of how much warming in Colorado is due to natural causes or man’s activity, the warming and its effects on fisheries have been noticeable in recent years.

Prolonged heat waves and extended droughts increase stream and lake temperatures, adversely affecting many fish populations because fish require specific temperature ranges for survival, growth and reproduction.



Low water in Dillon Reservoir, 2003. Photo by Ron Belak

Dissolved oxygen drops with rising water temperature, further stressing fish. Droughts also decrease water amounts in streams and rivers.

Colorado fisheries at lower elevations and near populated areas suffered the greatest impacts from drought and heat waves. Unlike fisheries in wilderness areas, these fisheries are stressed by increasing urban development, water diversions and runoff laden with sediment.

Bear Creek exemplifies this situation. In 2002, the stretch of Bear Creek from Evergreen Lake downstream to Morrison experienced massive fish kills. The little water flowing over the top of the dam was warmed by the prolonged summer heat wave. The creek then stopped running and disintegrated into a series of isolated pools that were further warmed and depleted of oxygen.

Drought also decreases snowfall, which means less snowpack accumulates and less runoff is available for fish in the spring. A study on snowpack in the West found that maximum snowpack in the northern mountains of Colorado decreased significantly from 1950 to 1997. Snowpack in most of the central and southern mountains remained about the same.

Data since 1997 shows that snow-

pack decreased across all of Colorado’s mountains from about 15 percent to 25 percent. Less snowpack results in low reservoir levels and the need to release more water earlier for crops and people.

Colorado’s recent drought further decreased water quality by contributing to an increase in the number and size of wildland fires since 1999. Fires burned more than 76,000 acres in 2000—more than triple the annual average in the 1980s and 1990s.

In 2002, more than 244,000 acres burned. Among the fires in 2002 were the state’s largest—the 137,000-acre Hayman Fire—and the 73,000-acre Missionary Ridge Fire.

The loss of vegetation in burned areas results in increased flooding, erosion and deposition of sediment into waterways, as evidenced by degradation of the South Platte River at Deckers.

Prolonged drought in recent years also contributed to growing beetle infestations, which have killed large portions of our forests. With fewer living trees, less runoff is absorbed, more flooding occurs, and wildland fires may increase. From 1996 through 2011, the mountain pine beetle killed lodgepole pines on more than 3 million acres in Colorado.

The recent warming trend has not

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Bobwhites, light Red-taileds, owls and . . . weasels

Yard Birds

Louise Mounsey continues to see a lone **Northern Bobwhite** at her home south-west of Evergreen High School and is concerned about it surviving the winter.

Unless the winter is extremely harsh, I believe the bird has a decent chance at survival if it stays in her yard, avoiding most predators.

During snowfalls, bobwhites depend on woody cover to prevent snow from reaching the ground and blocking their foraging habitat. They may eat birdseed from ground feeders in open backyards with shrub cover.

Bobwhites forage by scratching and pecking through leaf litter or foraging on low plants. When snow falls they seek out patches of bare ground under brushy areas for their staple winter food of seeds.

Bobwhites roost on the ground, so let's hope this one finds a relatively warm and safe place to spend the night.

Warren Roske has lived in Chimney Creek for three decades. His home backs up to Genesee Mountain Park. On Nov. 13, he reported seeing **Wild Turkeys** (seven hens) near his home for the first time in 31 years.

Great Grounded Grebe!

On Nov. 17, Richard Wheeler called to report an immobile grebe in the water off Foxton Road near Reynolds Park.

From Richard's description, it was likely a **Western Grebe**. The bird had been still for quite a while, so Richard thought it might be injured. Before he could help it, though, the bird flew away.

This bird was likely resting before continuing migration. However, grebes of all species are like fish out of water if they land on solid surfaces. They often get themselves in trouble by mistaking icy roadways for water.

Grebes are aquatic diving birds with legs that are positioned far back on their bodies. While their leg placement is ideal for moving through water, it is



Wild Turkey hen. Photo by Marilyn Rhodes

more difficult for grebes to move on land.

Grebes require a large body of water to take off and can become stranded without a water source. When they land on a roadway they are often injured or perish.

The Ubiquitous light Red-tailed

Chuck Aid wrote on Nov. 20, "While driving yesterday, I saw a Red-tail near Marshdale that was almost Krider-like in its clear whiteness, and I received a report from a woman in Hiwan who has seen a very white Red-tail. Anyone else picking up on something similar?"

Larry White responded, "I've heard several reports as well as seeing one near downtown Evergreen a couple of weeks ago."

Lynne Price said, "I have seen this bird several times starting last year along Turkey Creek between Danks Drive and Marshdale."

Bob Santangelo shared, "I have a similar-looking individual near my house here in Wheat Ridge at the Lutheran Hospital campus. Probably a first-year bird as well, all the typical markings of a juvenile."



Long-eared Owl. Photo by Marilyn Rhodes

Carol Burdick posted on Nov. 24, "Friends of mine live off of North Turkey Creek on Danks and have seen this light hawk for two summers now."

Peggy Durham asked, "How large a territory is this bird likely to cover?"

From what I've read, home range sizes vary from .81 to 3.2 square miles. The size of Red-tailed Hawk's home ranges varies with the quality of habitat, the sex of the individual and the season.

Lynne Price reiterated, "I saw it (the one between Danks and Marshdale) several times last summer and thought it was a juvenile. So, if it is a juvenile, it can't be last year's, can it?"

So what's this duck at Plum Creek?

Jeanette Strom took a photo of a duck on Nov. 19 and emailed it to Susan Harper and Sherman Wing for an ID, remarking, "Took us a while to figure this one out. Now keep in mind it was quite a distance from where we were but at least it didn't move."

Susan shared it with EvergreenBirders, "Check out this unusual photo of what I think is a female Mallard at Chatfield. Has anyone ever seen one rolling

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Mystery duck. *Photo by Jeanette Strom*

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in the mud to create this effect?"

Inga Brennan confirmed, "Yep, that's a female Mallard, but I've never seen a duck mud-bathe. Unusual!"

Then Sherman burst their bubble, "Are you passing that old duck decoy around again?"

JoAnn Hackos chimed in, "Looks like a carving—I don't know about a decoy."

Else Van Erp's comment was short and sweet, "Looks fake."

Just goes to show that even experienced birders can blow a bird ID. And who among us hasn't? I don't know a soul.

'Tis the Season to See and Hear Owls

On Dec. 8, Melissa Leasia emailed me, "I was walking Hunter just as it was getting to be dusk and I'm pretty sure I heard a Long-eared Owl. Could it be? I was on Buffalo Park Road between Buffalo Creek Road and Jack Pine.

I responded, "It seems unlikely Long-eared Owls would be calling now. However, Great Horned Owls should be dueting now and will be mating soon.

"Listen to the sounds on this link and read what it says about when you are most likely to hear Long-eared Owls. www.allaboutbirds.org/guide/Long-eared_Owl/sounds.

"Long-eared Owls have been reported in the foothills, a couple fairly recently, on eBird. Chuck Aid had one on Bergen Peak last August and another fellow, Bruce Cyganowski, had one in Corwina in June. Inga Brennan had one at her home in Genesee in June 2006, so they can be found here and have been for a while.

"My best guess is that it probably was a **Great Horned Owl**, but if you recognize the call on the recordings above as the ones you heard, then you are right."

The next day Melissa reported, "I definitely heard a great horned owl."

Great Horned Owls are the first of our owl species to court, mate and nest.

I've been to the new Lariat Lodge Brewing Co., by Center Stage where the former Evergreen Conference Center used to be, several times. The employees have reported sitting on their deck and hearing Great Horned Owls calling. They were saddened to discover one that died as a result of hitting a power line near their building.

Probably the most widespread owl in North America, the **Great Horned Owl** can be found in a variety of wooded sites. The 22-inch owl has two tufts of feathers that stick up from the top of its head. Although difficult to see, it's often heard during dark winter evenings and pre-dawn mornings. After chicks hatch in early March from eggs laid in late January, the adults remain mostly quiet.

Why do these birds of prey nest so early? It takes a long time to raise a baby owl to the size at which it can fend for itself. Such large birds grow slowly. By nesting so early, these raptors fledge

their young by the time spring arrives.

Snowy Owl irruption begins

I believe the first **Snowy Owl** reported in Colorado was seen just north of Denver International Airport on Dec. 5. As usual, the bird attracted a horde of birders and photographers.

Since Snowy Owls are irrupting over the northern states now, viewing guidelines have been published and shared by Black Swamp Observatory and Kaufman Field Guides.

Denver Field Ornithologists and Colorado Field Ornithologists have also shared these guidelines.

I think it is important that we all try to "be ambassadors and help educate beginners on how to enjoy these magnificent birds responsibly."

The guidelines can be found at the Black Swamp Bird Observatory web site: www.bsbo.org.

Wild Evergreen

Weasels

Bonnie Fricke of Bailey shared a photo Aug. 16 with this comment, "Look at what was in my woodpile!"

Many of us are not aware that long-

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Long-tailed weasel. *Photo by Bonnie Fricke*

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tailed weasels can be found right in our own neighborhoods. They've also been seen frequently in the talus slopes on Mount Evans where one of their favorite prey, the pika, resides.

Three species of weasels live in North America. The most abundant and widespread is the long-tailed weasel. The short-tailed weasel occurs in Canada, Alaska and the northeastern, Great Lakes and northwestern states, including Colorado.

The least weasel occurs in Canada, Alaska and the northeastern and Great Lakes states.

Long-tailed weasels and short-tailed weasels, also called ermine, are the two weasel species common to Colorado. They have many similarities and are often difficult to tell apart. Both weasels have the characteristic long, thin body and short legs associated with the weasel family. They have scent glands that can produce a pungent musk.

Distinguished by its long, slender body and long neck, the long-tailed weasel has the longest tail of the North American weasels, often more than half the length of its body. Its tail is brown with a black tip. An average male is about 16 inches long and 12 ounces in weight; the female is usually about half the size of the male.

Of the three North American weasels, the short-tailed weasel is intermediate in size. During summer the fur is dark brown with white (not buff) under-parts, white feet, and white along the inside of the hind legs. The tip of the tail is black.

An average male is about 13 inches long and weighs about six ounces. Males are distinctly larger than females of the same age.

As winter approaches, our weasels, long-tailed and short-tailed, become almost completely white; just their eyes, nose and tail tips remain black. This camouflage, which takes 30 days to complete, helps them hide in the winter landscape from predators such as owls, foxes and hawks. Once spring returns, so does their brown coloring.

Weasels are opportunistic feeders, meaning they eat absolutely everything that moves.

Weasels are commonly found along roadsides and around farm buildings. Because of their mainly nocturnal nature, sightings of this elusive creature are not common, but they are definitely out there.

If you want to know if you have a weasel nearby, there are two things you can do. First, listen for their range of vocalizations. They are able to produce a variety of sounds from a trill to a purr and even a screech or a squeal.

An easier, and more definitive, way is to look for their tracks. Weasels have a unique track—their back feet always hit the ground right where their front feet were. Their track looks like two in one.

Late spring and early summer is breeding season for weasels, and they only have one litter a year. Mating generally takes place while the female is still nursing a litter, or just after she has weaned the kits. The reason for this is that the gestation period is on average 280 days long!

Weasels are helpful animals to have around. They eat large quantities of rodents that might otherwise damage, eat or



A long-tailed weasel chases a pika in and out of the rocks on a talus slope on Mount Evans in late September. *Photo by Marilyn Rhodes*

become a problem for people (rats and mice) or crops (voles). Now that you know they live nearby, keep an eye out for signs of weasels, but make sure to keep your distance.

PAID ADVERTISEMENT

Birding With Mike

“Ducks and Winter Residents” \$50

Classes: Feb. 11 & 18
Jefferson Unitarian Church, Golden

Field trips: Feb. 13, 20, 27
Locations TBA at first class



Details: www.BirdingWithMike.com

Questions: Mike1.foster@comcast.net

Climate change affects fisheries in different ways

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adversely impacted all fisheries. Anglers visiting Colorado's high mountain lakes appear to have benefited from a longer open water season.

For 30 years, I have fished these lakes just after ice-out, and I have noticed that my trips have been about two weeks earlier in recent years. Longer open water seasons also allow fish to grow larger.

While impacts from Colorado's recent warming trend are clear, impacts from future warming can only be estimated. To do so, climatologists use complex computer programs to model circulation patterns in the ocean and atmosphere.

Models account accurately for past events, but their predictions depend on many assumptions. Most models assume rising temperatures consistent with increasing amounts of atmospheric carbon dioxide as predicted by the IPCC.

The IPCC estimates a doubling of carbon dioxide and a 4- to 9-degree Fahrenheit rise in temperature in the western United States by 2100.

These estimates depend heavily upon the rate at which the global economy and population increase and the degree to which technology will improve the burning of fossil fuels.

Computer modeling, however, cannot precisely predict regional changes, much less model how climate will change at a favorite fishing hole. Colorado's wide range of topography and elevation compounds inaccuracies.

Nevertheless, models are consistent in predicting certain changes for Colorado over the next 50 to 100 years.

These overall projections are similar to what has already occurred over the past decade—increased heat waves and droughts, an average warming of surface waters, an increased incidence of wildland fires and insect infestations, and increased competition for water.

Changes in snowpack are less certain as it is more controlled by the amount of precipitation and less by average temperature.

Future impacts to fisheries from climate change are also determined through modeling. Scientific studies through 2007 generally used the same



Pine beetle infestation, Mt. Zirkel Wilderness, 2003. Photo by Ron Belak

methodology for modeling impacts to stream habitat.

Knowing the maximum water temperatures that each species of fish can tolerate, scientists obtained stream temperatures from U.S. Geological Survey stream gauging stations and determined which species could exist at each station.

Next, scientists used IPCC data to project air temperatures over the next 90 years, converted these air temperatures to corresponding changes in maximum stream temperatures of from 2 to 9 degrees Fahrenheit, and determined which species could not tolerate the increased temperatures.

Although the studies were national in scope, they displayed results specific to Colorado and included from four to 20 common Colorado species.

These studies concluded that cold-water habitat supporting trout and mountain whitefish would decrease at lower elevations where summer temperatures are already near the species' maximum tolerances.

One study predicted a loss of trout habitat in 18 percent to 33 percent of locations studied while a second study estimated a loss of up to 40 percent of trout habitat over Colorado.

Another study predicted about a 20 percent loss of Colorado River cutthroat habitat on the Western Slope. Scott

Cooney, a fishery biologist at Colorado State University, concluded that global warming could help cutthroat on the East Slope.

Citing its tendency to occupy cold high-elevation streams, he said that cutthroat fry could benefit by a longer growing season and that fish could migrate or be planted upstream in areas that are now too cold.

Collectively, the studies conclude that warm-water fish, such as large-mouth bass, channel catfish and common carp, could expand their range in Colorado by moving upstream into waters that are now too cold.

Scientific studies on the impacts of a warming climate on lake habitat are too limited in scope to generalize for all of Colorado. One study conducted for the Environmental Protection Agency modeled 27 different lake types at 209 locations nationwide.

The modeled lake types that are most similar to Colorado's high mountain lakes showed little impact, and at the five Colorado locations in the study, which were all below 7,000 feet, modeling predicted that a warming climate will not significantly affect cool-water fish.

This article was first published in the July/August 2008 issue of Colorado Outdoors magazine.

Kids Love Gardening next to *Flowers for a Friend*

Since the placement of the *Flowers for a Friend* sculpture on the grounds of the Hiwan Homestead museum in July 2015, this sculpture has been a magnet for kids.

“Emma,” the young girl in the sculpture, offers a bouquet of flowers to her adult friend and mentor, and kids love her!! It is infrequent to visit the sculpture and not see kids mesmerized by the sculpture and playing at its base.

Ken Ball created the sculpture to reflect the intergenerational sharing of the love of nature and gardening and his goal has certainly been met.

The sculpture is a tribute to Louise and Bill Mounsey, recognizing all they have done for our community and the gift of the sharing of nature that they have passed on.

An enormous thank-you goes to all our great sponsors who made this project possible:

The family of Joan Reynolds, the family of Sandee Ball, Pam Hinish and Tony Trumbly, the Swan Realtor Group, Coldwell Banker, Babcock’s Garden



Hannah Crangle and Skylah and Kodiak Kellogg help Louise and Tina Kellogg plant daffodil bulbs. *Photo by Pam Hinish*

and Feed, Given Trees-Tina Kellogg, Evergreen Garden Club, Evergreen Audubon, Creekside Cellars, the John Donovan family, the Mounsey family, JustAroundHere.com, Evergreen National Bank, Sundance Gardens,

Sundance by Design, the Muddy Buck, Keys on the Green, Evergreen Elks and Zuni Signs.

Also, thank-you to the many wonderful people who donated from our community!
- Pam Hinish

2016 EA Annual Banquet Reservation Form

Friday, Jan. 15, Mt. Vernon Country Club

Number in your party _____ Contact name and phone number _____

Mount Vernon Country Club will plate meals for any guests who prefer to be served at their table.

For name tags, clearly print first and last names of each guest attending. Check box for table service.

_____	<input type="checkbox"/>
_____	<input type="checkbox"/>
_____	<input type="checkbox"/>
_____	<input type="checkbox"/>

Cost is \$35 per person. Make check payable to Evergreen Audubon and write “Banquet” on the memo line. Payment must be included with your reservation. Enclosed is my check for \$_____.

Reservations must be received by Friday, Jan. 8, 2016!

Mail to Evergreen Audubon, P.O. Box 523, Evergreen, CO 80437-0523.

Sometimes it's worth reviewing a book that tells a fascinating story, even if it is not about the world of birds.

Mark Kurlansky weaves an account of the history of salt, the "only rock we eat."

The history of salt is the history of civilization. But its history extends further back because salt is an essential substance in the natural world, part of the nutrient requirements of both mammals and birds.

Early man followed the trails of animals looking for salt and discovered they had to supply salt to the first domesticated animals.

Homer calls salt a divine substance. Plato believed it worthy of the attention of the gods.

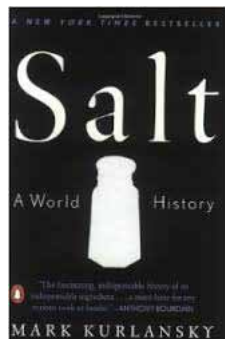
The Romans called a man in love a "salax" because he was in a salted state, hence our word "salacious."

Probably the most important use of salt for thousands of years is in the preservation of food. As a consequence, salt became one of the first traded commodities.

Salt was fought over, hoarded and taxed until the last 100 years. Only very recently in human time has the necessity of salt been replaced by refrigeration.

Today, most salt mined is used to make roads passable in winter.

In prehistoric China, salt was harvested from lakes that evaporated in the summer heat. The Chinese records show that by 800 B.C., they put ocean



SALT: A World History, Mark Kurlansky, Penguin Books, 2002.

water in clay pots and boiled the water away.

Rather than sprinkle expensive salt on food, they used it to ferment beans, creating soy sauce.

By 252 B.C., the Chinese discovered that they could drill wells to recover brine. When the wells were also found to produce natural gas, they fired the gas to produce heat to boil pots of brine to produce salt crystals.

These salt wells used the most advanced percussion drilling techniques in the world, centuries before the first oil well was drilled in Pennsylvania.

The Chinese and the ancient Egyptians learned to cure meat and fish with salt. The Egyptians used salt to make olives edible, leading the way to the production of olive oil.

But perhaps the best known use of salt in the Middle Ages in Europe was the preservation of fish, especially cod.

Salt allowed fisherman to venture far-

ther out into the north Atlantic and for much longer periods because they could preserve the fish they caught in salt.

In Europe, salt was made from sea water on the coasts, especially in France, and was mined in areas like Salzburg, Austria.

Rome, along with most Italian cities, was situated near salt works. Roman soldiers were paid in salt, hence our word, "salary."

Kurlansky takes us around the world with the story of salt, from Liverpool miners to the Mayans, who controlled salt production and prospered through salt trade.

Salt was fought over during the American Civil War. The city of Cincinnati became a major commercial center because of its proximity to salt mines, which facilitated the curing of hogs.

The Erie Canal provided Syracuse salt to the Midwest.

The British tried to force people in India to buy salt from Europe during their colonization, even though India had extensive salt works.

They made salt into a British monopoly, prohibiting the private manufacture and sale of salt and impoverishing the traditional salt makers.

Gandhi led the first salt rebellion, which eventually led to the defeat of British colonialism in India.

The accounts in "Salt" are so interesting, it is difficult to put the book down.

By the end, you learn that salt consumption is declining throughout the world. However, we still love our pickles, hams, sausages and olives.

And I'm getting ready to purchase my traditional salt cod for Christmas Eve.

The United States is the largest salt producer and salt consumer in the world. But only 8 percent of the salt is used for food; 51 percent is for de-icing roads.

We now buy salts from around the world, many of them with unique colors. After thousands of years of trying to make salt white, we now want our salt to be pink or gray or blue.

Just visit the salt specialties in the local supermarket. Salt has become fashionable.

Red Rocks Seeding Project

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from a gift shop to the Colorado Music Hall of Fame. New guidelines have been set out, mostly having to do with what we can put out and where we can put it.

Keeping the area clean and not giving their full-time landscaper extra work cleaning up after us is high on their priority list. They have made it clear to us that if we do not abide by a few fairly simple requests, seeding will not continue.

We have volunteers placing the right seed in the right places on a daily basis,

and we have a volunteer cleaning up once a week.

Thanks for your support in ensuring that we can continue to provide a rich, diverse, easily accessible place to see a great variety of winter birds for a long time by not bringing your own seed when you visit Red Rocks. If you would like to be a part of this rewarding project or if you have any questions, please let us know.

- Tom Behnfield

Red Rocks Seeding Coordinator
behnfield@q.com, 303-910-6858

CALENDAR OF EVENTS

Jan.. 10	<i>Dipper</i> deadline	5 pm	
Jan. 15	EA Annual Banquet	5:30 pm	Mt. Vernon CC
Jan. 16	Third Saturday Bird Walk	7:30 am	Bergen Park-n-Ride

Please submit *Dipper* newsletter content by the 10th of the month to dipper@EvergreenAudubon.org. Your submissions will be forwarded to both *Dipper* editor **Debbie Marshall** and **Kathy Madison**, EA Director of Communications.

VOLUME 46, NO. 1. Evergreen Audubon, P.O. Box 523, Evergreen, CO 80437, publishes *The Dipper* every month. Evergreen Audubon is a chapter of the National Audubon Society. Members may receive an electronic copy of *The Dipper* without charge or may pay \$15 a year for a mailed hard copy (members only). Evergreen Audubon encourages readers to submit original articles, creative nature writing or art to *The Dipper*. Please state if the material submitted has been published elsewhere requiring publisher's permission. The editor reserves the right to select suitable articles for publication and to edit any articles selected.
Audubon Rockies Office, Rockies.Audubon.org

Evergreen Audubon Local Membership Application

I/we would like to join the Evergreen Audubon. I/we may participate in all chapter activities, receive *The Dipper* newsletter electronically, and vote (two Family members may vote) on chapter issues. Dues remain locally.

Date _____

	Individual	Family
Annual dues	\$ 25	\$ 40
Electronic <i>Dipper</i>	\$ 0	\$ 0
Hard-copy <i>Dipper</i> (members only)	\$ 15	\$ 15
Additional donation	\$ _____	\$ _____
Total	\$ _____	\$ _____

Name _____

Family member(s) name(s) _____

Address _____

City _____ State _____ Zip _____

Phone (optional) _____

Email _____

(must include for electronic *Dipper*)

Enclosed is my check payable to: **Evergreen Audubon, P.O. Box 523, Evergreen, CO 80437.**

I DO NOT want solicitations from National Audubon.

If you would like to join or donate to the National Audubon Society directly and receive the AUDUBON Magazine, use chapter code C9ZD090Z and call 1-800-274-4201.

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 Banquet Registration
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 Weasels

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THE DIPPER