

Beaversprite

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Winter 2020-21



A young beaver acts like an icebreaker at the pond.

A whitetail doe pauses by a burning bush that sheds snow on her back.

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President's Message

I hate February!!! Is this the coldest month of the year or does it just seem to be, because Spring is only a month away. But wait, February has just 28 days unless it is leap year then of course we add a day so it has 29 days. Is this not the most silly of things? And what about some months having 30 and others having 31 days.

Crank up the calculators on your smart phones and divide 365.25 days in a year by 28. What? 13.045. There I saved you the effort. You know what this means? Yes, if each month has 28 days, then we need a thirteenth month. I have been pondering this for years and have finally come up



A Blue Jay and Cardinal huddle during a below zero day.

with the name: "Remember" for the 13th month. It would be November, December and Remember!!

Advantages of All 28-day Months

Look at this year's calendar: February 1st falls on Monday. March 1st falls on Monday! If we had this lunar calendar every month's date

would fall on the same day as the previous month's date. Gee, maybe that would be too boring! Imagine not having to fool with your watch to change the date when going from a 30-day month to a 31-day month.

Isn't it quite appropriate that the last month of the year be named Remember? How easy it would be to make watches where every month has 28 days.

OK, so there is a disadvantage. BIRTHDAYS on the 29th, 30th and 31st. My niece's birthday on January 29, would become February 1st.

Instead of one day of remembrance (Dec. 31),



What color is a Red-bellied Woodpecker's belly? See p. 16.

having the 13th month of Remember seems quite appropriate. And would it really matter to the BEAVERS OF THE WORLD?

In Beaver World

Enos Mills wrote *In Beaver World* in 1913 after he'd studied the species for 27 years. Today his classic is increasingly relevant.

Heidi Perryman of Worth a Dam enlisted "fathers and mothers" of the modern beaver movement to spread the word. Each read (and recorded via AudioAcrobat) a paragraph from "The Original Conservationists," the last chapter of Mills' book.

Kent Woodruff, founder of the Methlow (WA relocation) Project, began with the first paragraph, followed by Mary O'Brian of the Grand Canyon Trust, and Michael Pollack of NOAA. BWW's biologist Sharon Brown did the fourth paragraph and nine other beaver experts followed.

Perryman beautifully matched the readings with nature footage in a 12-minute video. See it at: <https://youtube/t3j0T23GxwM>.

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Tim Behrendt stands on the dam at Shawangunk Preserve near a new pipe and cage flow device.

News & Alerts

Stop the Wildlife Trade

Wildlife trade is a major threat to public health. It is the most likely cause of COVID-19 and other pandemics (see p. 7) and a major contributor to the extinction crisis.

The Center for Biological Diversity is asking Congress to address this critical issue by passing legislation to ban wildlife trade and substantially increase funding to combat wildlife trafficking.

In the past 40 years, the worst human pandemics — including HIV, SARS, avian flu, swine flu, Ebola, Zika and COVID-19 — have all stemmed from wildlife trade, consumption or habitat destruction.

Please sign a petition urging Congress to take action to make future pandemics far less likely: <https://biodiv.us/endwildlifetrade>.

President's, *Continued from p. 2.* Shawangunk Success!

Peg Behrendt called us last year about a dam at Shawangunk Preserve in Cold Brook, NY that was threatening to flood a county road. We consulted with the Behrendts and their grandson Todd who bravely took on the challenge of installing a flow device before the road crew took action. His install with two pipes worked, until a beaver pushed up one pipe, almost ending its flow. After another consult, others sprang into action and the beautiful, vibrant pond has survived!

We've had a variety of other calls, ranging from a Canadian who's trying to stop beavers from living under docks in a huge bay to an Oregon man who wants to preserve 138 acres of steelhead and beaver habitat along the Rogue River. Stay tuned.

[For Beavers and All,](#)



California Beaver Summit April 7 & 9

Celebrate International Beaver Day this year by registering for the online California Beaver Summit on April 7 and April 9. Many beaver experts will be featured during the two half-day sessions. They can be watched on Zoom from 1-5 pm (PT) in California, or at a different time, according to your time zone. Most people on the East Coast can watch from 4-8 pm (ET).

Climate change is making California hotter, drier, and harder on people and wildlife. Find out how beaver can help.

The Golden State has had many droughts and subsequent

wildfires recently. Since beaver activity helps prevent and alleviate the damage from such events, the California Summit is an especially timely event.

Understanding both beaver benefits and their management can transform an uninvited guest into an untapped resource.

Worth a Dam is presenting the event along with Sonoma State University, the Occidental Arts & Ecology Center, Biodiversity First, and California Urban Streams Partnership. To learn more and register go to: <https://cabeaversummit.org>.



Restoring Bears Ears

President Obama created Bears Ears National Monument—1.35 million acres of rugged, beautiful land in southeast Utah—in 2016. A year later, President Trump reduced this uniquely Native American and beautiful monument by 85 percent.

Two distinctive orange buttes that resemble ears rise up above a meadow where Indigenous people have come to meet and trade for centuries. The Bear Ears Coalition consisted of five tribes with the Navajos taking the lead in the effort to protect the site.

Not only did the Trump administration greatly reduce the size of Bears Ears, they also chopped it into two small, unconnected sections. Neither was called Bear Ears, the name that all five

tribal nations had agreed upon.

On the very first night of Joe Biden's presidency, he ordered federal agencies to reverse any of Trump's executive actions considered "harmful to public health, damaging to the environment, unsupported by the best available science, or otherwise not in the national interest."

Bears Ears was specifically mentioned under that order, and early signals point to its full restoration.

Please sign the Grand Canyon Trust's petition to restore both Bear Ears and the Grand Staircase Escalante (another beautiful public site that was cut by 50%) monuments. Visit: <https://www.grandcanyontrust.org/> and search for "Bear Ears."



Winter Comes to Twilight Pond

Unexpected Boarders at the Lookout and More

By Sharon T. Brown

Beavers prepare for winter by storing an underwater cache of edible branches by their lodge. While they don't fight over food, some are much more involved in building the food cache than others. A beaver was chewing on a poplar tree in late September when Ruff came along and grabbed it. He often tows trees to the lodge. But this first beaver quickly jerked back her breakfast.



Beavers start making a winter food cache in fall.

First came the sounds of munching overhead.

Another time, a two-year-old began towing away a poplar — with two yearlings hot on his tail. The worker seemed not to notice as a follower neatly bit off a good-sized branch. The triumphant yearling shared the prize with a sibling as the rest of the tree sailed west to the lodge.

Each afternoon, Reba began her breakfast with cereal, the dried corn we tossed into the shallows along the west shore. Then, for her second course of poplar bark, she'd swim to

the east bank by taking a short cut under the Lookout. As I gazed down at her slowly emerging broad body, it reminded me of a dirigible.

Upstairs Tenants

Our own preparations for winter involved evicting some small rodents. Over several months, we'd become aware that we were sharing the Lookout with upstairs tenants. First came the sounds of munching overhead. It was similar to the louder noises beavers make while eating, —rather like a human crunching on celery. It'd stop when I banged on the knotty pine ceiling.

Then little, yellow particles began falling from the corners of the pine ceiling. We recognized the slowly increasing flow as chewed bits of the solid polyurethane insulation we'd installed under the Lookout's metal roof several years ago. A battery-powered vacuum helped clean up the mess.

A chipmunk inside the Lookout had surprised me a few times, so I thought that might be the mystery tenant, while Owen's guess was mice. The last straw came when we noticed wetness along the edge of ceiling boards on the east side. Not only were the little boarders noisy and messy, they were eliminating upstairs!

An Eviction Notice

Brilliant fall foliage on the far side of the pond reminded us that winter was coming, and we didn't want to oust anyone in cold weather. Owen sent an eviction notice on Sept 22 by pulling off a ceiling board. That caused a shower of polyurethane bits—plus a flattened, dead deer mouse!

He removed a second board, releasing inches of chewed insulation onto the floor, and so much dust we could barely breathe. But we weren't the only ones disturbed. Two tiny pointed, whiskered faces peered down at us from the opening.



A captive deer mouse. By DiGangi.

A Maze of Tunnels

Not until Sept. 27 did we remove all the remaining ceiling boards. That's because eight cords of split firewood were dumped on our lawn at home on Sept. 24—with another truckload due to arrive on Oct. 4. This delay

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Flaming fall foliage on the far shore of the Pond.

Winter, Continued from p. 4.

while we piled wood on the porch, gave the deer mice ample time to depart, and they did.

Deer mice have especially big eyes and a two tone coat (dark above and white below). They were named for their agility in running and jumping.

Once all the ceiling boards were down, the Lookout was not inhabitable. Overhead, an intricate maze of tunnels and “rooms” was revealed.

Small Rodents Plan Ahead Too

A few cups of tiny pointed seeds had fallen from the center of the mouse maze. They resembled miniature apple seeds and came from a hollowed out area that likely was used for storage. Would the tiny couple now face winter without food?

I swept up the seed pile and took it outside. I left half the seeds just east of the Lookout’s short boardwalk. and dumped the rest between the boardwalk’s end and the huge white pine nearby.

To my surprise, all the seeds were gone next day. A week later, I noticed a tiny burrow at the base of the giant white pine. A pile of newly dug gravel by the little opening was entirely covered with tiny footprints. Could they be from the Lookout’s evicted tenants?

Or, since temperatures in the glass-walled Lookout can rise to 90° F in the summer, perhaps the mice already had been using that burrow occasionally to escape the heat, and now needed to enlarge it. as their main dwelling.



A beaver uses his paw to grab the butt end of a branch he is towing, before switching it over to his right side.



The lodge with attached food cache that’s mostly to the east (left), in early winter.



New mouse? burrow at the white pine’s base.

Indian Summer

We were still vacuuming up dust and tiny yellow bits by early October. That is because deer mice may rarely carry Hanta virus.

Luckily, the beavers became used to our noisy clean up work. At times, eight to ten of Reba’s family arrived within a half hour of our calls.

On the Big Pond, dozens of Canada geese began assembling to prepare to migrate. They’d left Twilight Pond many weeks earlier, but had stayed in the area. As we had discovered in July while attempting to release an orphan gosling there, Canada geese can be much more wary than the beavers. They can’t simply dive to evade a predator, and a bear or coyote may have spooked them.

Thin ice covered the ponds at the

end of October. It was fun to watch beaver heads emerging. After breaking through the ice with their heads, they’d rise up at the openings to enlarge them by pressing down with their front



Beech leaves brightened the trail.

paws and chest.(see the photo on p. 1). They created several openings about 5-6 feet apart at Lookout Cove..

Then an “Indian Summer” began on Nov. 4th when nine of the family showed up. Reba’s mate Blake was caulking their lodge with mud. The large, “split-level” house helped protect their growing food cache from the wicked west winds—and any floodwaters that might sweep it away. By Nov. 12 when the warm spell ended, their cache of branches was about 60 feet long, and surrounded by a channel of open water.

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Finding Comfort during the Time of Covid

Social Distancing is Easy Outdoors, yet it also Offers Community and Connection

By Carolyn Newberger

Last night on the NPR news, Jeffrey Brown interviewed Yo-Yo Ma about music as a comfort for the soul. Mr. Ma spoke of his musical voice as “Finding the needs of others and then representing them.” He expressed hope that his music would be a comfort to people at this terrifying time. Ma then played a short excerpt from Dvorak’s New World Symphony. He played with his eyes closed, the music seemingly flowing directly from his



Sanctuary, a watercolor by Carolyn Newberger.

heart into ours.** I could see Jeffrey Brown fighting back public tears as my eyes filled with my private ones.

This beautiful episode reminded me about the importance of finding comforts within us as we face the dread and uncertainty of the danger around us. Music is one of those comforts. For many people, faith is another. We need to connect with what comforts each of us.

In this time of sequestration, the comforts of community are more difficult to come by, but not impossible. Friends and family are reaching more frequently for the telephone and FaceTime to check up on each other and to admonish each other about protecting themselves.

We encountered many people on the trail, and our greetings felt especially meaningful.

For many if not most of us, nature is also a comfort. Social distancing is easy in the outdoors, yet also offers the opportunity for community and connection. Our daughter described how her neighborhood is changing. People are out on the street walking. Neighbors who hardly knew each other are exchanging greetings across their 6 feet of distance, inquiring after each other’s well-being, creating a community where one didn’t exist before.

Walking in our parks and forests provides both solace and community. Even though their offices are closed, Audubon sanctuary trails are open for hikers. Yesterday in Kennedy Park, we found peace in the spare openness of the woods, in their quiet calmness, in the sound of water flowing from the beaver pond through the culvert and into the brook below.

We encountered many people on the trail, and our greetings felt especially meaningful. On one of those encounters, we met a veterinarian with his wife and two exuberant retrievers. We struck up a conversation that gave me a chance to ask a question that has been on my mind: “Can dogs



Snowy Doe. By Sharon Brown

get the coronavirus?” He knew the answer, which is that there has been only one reported case in Hong Kong. However, he added that the virus could possibly be transferred on dogs’ fur. Now I know not to pet the dogs on the trail while enjoying the comfort and delight of the social connections with their owners.

Many sources of comfort are here for us, including music, our neighborhoods and the forest trails. Finding peace in the forest is a way, literally and figuratively, of staying grounded, of drawing strength, and of reaching out to others.

**You can view Yo-Yo Ma’s interview and performance at <https://www.pbs.org/newshour/>. Search also for Yo-Yo Ma, and other “songs of comfort.”

This piece was in the March 19, 2020 issue of The Berkshire Edge. It is Chapter 38 of Newberger’s column “Illuminating the Hidden Forest.”

How to Prevent the next Pandemic

Why Wildlife from “Wet Markets” pose a Major Risk

By Linda DeStefano

“It boggles my mind that when we have so many diseases that emanate out of that one human-animal interface that we don’t just shut it down,” said Dr. Anthony Fauci, a top infectious disease expert, about “wet markets”. Such markets in China, and elsewhere, sell wild species known to transmit deadly pathogens to humans.*

Wet markets have been implicated in the spread of SARS, MERS and Ebola viruses.

Dr. Fauci’s words are from a 2020 interview on Fox News. He has been advising the White House through two administrations (most recently as the Chief Medical Advisor to Pres. Biden) about slowing the spread of COVID-19.

At wet markets, wild and domestic animals are crammed into cages and slaughtered on the spot. Their blood, feces and urine cause extremely unsanitary conditions. Animals that ordinarily would not be in close contact are forced into this hell hole and can transmit disease viruses between species.

The viruses mutate and eventually find their way into humans. Wet markets have been implicated in the spread of several disease outbreaks in recent years, including Severe Acute

Respiratory Syndrome (SARS), avian influenza, Ebola and Middle Eastern Respiratory (MERS). Last year the COVID-19 pandemic was traced to a wildlife market in Wuhan, China.

It is not only China and other foreign countries that maintain such wildlife markets. They also exist in the U.S., including several in New York City.

Citizens can communicate with Gov. Andrew Cuomo to ask him to shut these markets down. You can send an email at his website: www.governor.ny.gov or write to him at Executive Chambers, State Capitol, Albany, NY 12224.

Another Virus Venue

Another business that has been an incubator for deadly viruses is factory farming, where thousands of animals are crammed into cages in huge buildings. The chickens, pigs and cattle are so stressed by these conditions that antibiotics are routinely administered until slaughter.

The American Public Health Association (APHA) has called for a moratorium on factory farming for nearly two decades. An editorial in the APHA Journal said:

“It is curious,... given the pandemic threat, that changing the way humans treat animals, most basically ceasing to eat them, or at the very least, radically limiting the number that are eaten—is largely off the radar as a

preventative measure. Such a change, sufficiently adopted or imposed, could still reduce the chances of the much-feared influenza epidemic. It would be even more likely to prevent unknown future diseases that, in the absence of this change, may result from farming animals intensively and killing them for food. Yet humanity doesn’t even consider this option.”

Change is Coming

That may be changing, according to Michael Greger, MD of Nutritionfacts.org. He notes the growing popularity of milks and meat that are plant-based.

Our food choices affect both our personal health, and global health due to the risks of climate change and pandemics.

Dr. Greger notes that major meat producers have started blending in vegetable proteins to make hybrid meats like Tyson’s “Whole Blends” sausages, and Perdue’s “Next Generation” chicken nuggets. The world’s largest pork producer, Smithfield, has launched a line of plant-based products. Quorn, a brand of meat-free products made from mushrooms, has opened a facility that can produce the equivalent of 20 million chickens per year.

The primary health benefit of a meat-free harvest would be food safety. Plant products do not brew respiratory infections or fecal bugs like Salmonella. They greatly reduce water use and greenhouse gas emissions too. Factoring in pandemic risk, the overall benefits to human health may rival those of planetary health.

DeStefano died in a 2020 traffic accident. She was an amazing animal advocate and a leader of People for Animal Rights and the Syracuse Sierra Club chapter.

*Guzman, J. Spring, 2020. “Fauci: It’s mind boggling...” The Hill.

Greger, M., 4/16/20. “Take-aways from my Webinar on COVID-19.” Nutrition Facts.org.



*Bats leaving a cave (FWS). Bats can be early hosts for SARS, MERS and Ebola.

Public Outcry Stops Beaver Trapping at Ontario Town

Large Beaver Conibears Catch Non-targets like Pet Dogs

By Brock Weir

The Town of Aurora in Ontario has suspended the trapping of beavers at stormwater management ponds following a public outcry.

“These lethal traps are hidden in the water at the end of wildlife trails,” Rachel Evans warned.

According to Aurora’s Manager of Corporate Communications, the Town has suspended trapping activity pending consultation with Ontario’s

Ministry of Natural Resources about “best practices and alternative methods for beaver management.”

“Our preference is always to have peaceful co-existence with local wildlife, and we are hopeful that

we can find a way to protect residents from flooding and enhance our handling of wildlife at the same time.”

Alarm Bells about Pedestrians too.

Residents raised alarm bells over the use of traps to capture beavers in stormwater management ponds... One such resident, Rachel Evans, said she had concerns not only with the impact on wildlife but on dogs and pedestrians as well.

“I have heard from numerous nature walkers that the Town is setting wildlife traps in ponds to kill beavers,” she said. “These lethal traps are hidden in the water at the end of wildlife trails.

“Check out reports,” she said, “from dog owners across the country whose

pets suffered broken muzzles and leg amputations after stepping on a concealed trap in the water.”

“There is no law that requires public posting of the location of these cruel traps, but we expect Town policy of transparency. Let us know the location of these traps and why they are necessary. Aurorans take pride in the natural trails and forests. Killing wildlife should be the last resort.”

The issue was subject to significant discussion on social media as well,



Beaver Conibears often injure or kill pet dogs that wade in the water.

prompting the Town to state that the practice of trapping is to “maintain public safety and to manage risks associated with beaver activity as it relates to public health and infrastructure.”

“We have a healthy beaver population in our Town, and our preference is always for co-existence, tolerance and prevention,” said Ms. Bennett. “We actually use a number of methods to manage beavers, including wrapping trees with wire, planting species of

A beaver dam was blocking the outlet of the stormwater management pond “impairing the facility’s functioning.”

trees that beavers don’t touch, and removing dams where necessary. That being said, in some cases, and despite our best preventative efforts, beaver activity results in a risk to public safety, or a risk of damage to public infrastructure.”

In this particular case, Ms. Bennett said a beaver dam was blocking the outlet of the stormwater management pond “impairing the facility’s functioning and creating risks to both public and private property.”

“As such, for this type of situation, we operate a nuisance beaver program that includes trapping – a common practice in municipalities across North America. This is, again, a last resort. Trapping is done with licensed trappers and in accordance with the Ontario Ministry of Natural Resources and Forestry and the Fish and Wildlife Conservation Act. We work closely with these bodies to make sure that the program is run within regulations.”

The trap in question, she added, was subsequently stolen.

This article appeared in the Jan. 14, 2021 issue of The Auroran. BWW has written to Aurora to explain the better and more lasting solutions.

Two-legged Victims

People have been injured by beaver Conibears too. Twelve-year-old Sebastian Schorr was cleaning up litter at a pond when a large Conibear snapped shut on his hand. According to his dad, it took six hospital staff members to remove the trap.

Sebastian was lucky to only suffer flesh damage to his hand and arm. A young man looking for his dog in a marsh had stepped into a Conibear that broke his leg. He had to call passersby for help. Conibears have also caught and killed rare species, like Bald Eagles that fish in beaver ponds.

Everyday Sustainability Guide

Seven Easy Steps that are Good for You and Our Planet

A new, 16-page-green guide by The Nature Conservancy (TNC) has seven basic actions that we can take in our everyday life “to make our world a little greener, a little more sustainable.” Most will save you money too. Because “our planet’s facing big challenges, we need all hands on deck to create a more sustainable future.”

Leave that “All or Nothing” Mindset behind. Getting greener is not a zero sum game. Start by picking just one action that you’re excited about and is a bit of a stretch for you. Many of the Guide tips will help to reduce your carbon footprint—or the amount of carbon emissions that your activities cause.

Reduce Your Food Waste
Rescuing food before it goes bad saves water energy and money. 92% of water consumed globally goes into producing food and fiber. Yet about one-third of all food produced for human consumption is wasted. Suggestions for using leftovers and veggies include stir-frying with some chopped garlic and a dash of sesame oil and soy sauce. Or combine leftovers in a salad or roast, or use them to make a healthy pasta sauce. Don’t forget about freezing leftover ingredients too.

Choose Vacations Closer to Home. Cut back on air travel when possible, as flying less helps greatly to combat climate change. “Emissions from a single round-trip flight between Washington, DC and Borneo, Indonesia can equal the total household energy use (electricity, gas, etc.) of the average American family for a whole year.” Just reducing the numbers of



layovers can help. Try a “staycation,” by finding nearby nature sites to explore and checking out nearby cities or regions.

Shut Down Hidden Power Hogs. Our appliances use power even when they are turned off. Yet, plugs to big power hogs, like WiFi routers, may not be easily available. ‘Smart’ and remote-controlled electrical outlets make shutting down passive energy easy. (Some libraries loan “kill-a-watt” meters that measure how much power such devices consume when left on.) The better power outlets range from about \$10 to over \$50.

Eat More Plant-based Foods. Shifting to one or two plant-based meals a week benefits both your health and the planet’s. Plant-based foods, such as veggies and grains have much lower carbon and water footprints [and much lower levels of toxins like pesticides too] than animal foods. Beans, lentils and peas are high protein foods with the lowest environmental impacts.

Nuts, seeds, and meat alternatives, such as tofu, are quick and easy options.

Seal up Energy Stealers Insulate and caulk your home. Basic home insulating reduces your carbon footprint as much as replacing old single-pane windows with new energy efficient ones—and costs much less. Caulking is an inexpensive do-it-yourself project. Learn about R-value, an insulation’s thermal

resistance, the higher, the better. The U.S. EnergyStar program has an R-value map for climate zones and other helpful information.

When in Doubt, Leave it Out. Learn what can and can’t be recycled by your local community’s public works department. **Recycling saves almost 16 million tons of carbon emissions each year**, plus has the added benefit of less landfill waste. Common off limits items include #5 plastic used in hot and cold food containers, #6 plastic AKA polystyrene used in egg cartons, packing peanuts, disposable cups and take-out containers, dirty/oily containers and compostable plastic (often it has PLA on the bottom instead of a recycling number.)

Get Greener! Focus on steps that you’re excited about and that help you stretch a bit more beyond what you’re already doing. Don’t feel like you have to do everything at once.

This TNC Guide is available online at: tnc.green.guide, after filling out a short form.

Winter, Continued from p. 5.
Sprites on the Pond

Thanksgiving brought more warm weather (50°F) with no wind. That combination created enough fog to transform the pond into a mysterious landscape. It reminded us of the reason why early settlers had called several local streams the Little Sprite, Middle Sprite and Big Sprite. At times, there appeared to be misty apparitions, or “sprites” on the ponds.

We checked out the beech stand near the beavers’ Grand Canal, and saw where they’d been actively harvesting. Although an ongoing “beech blight” has made the large ones rarer in recent years, there’s still an abundance of what some call young daughters and sons of beeches.

Even in mid December, it was possible to break enough ice along the cove’s west bank to toss in a poplar with some apples and dried corn. A heavy, dead evergreen branch on the shore was conveniently shaped like a hammer. It worked well enough to crack and clear out some ice, before throwing in a small poplar, apple pieces and corn. The tree was gone by our next visit.

With 2020 being one of the warmest years on record, we’d not had to use snowshoes at all. Global warming has some benefits, although it’s certainly highly harmful overall.

“Bear” Below

On New Year’s Eve, I checked out the Pond again. It’d been above



The colony was harvesting young beeches to the east.

freezing the day before and there was open water around the Lookout. I’d only been inside for a few minutes when a large animal began splashing around below me. Beavers sometimes ventured under the Lookout, but always did so quietly. Had the thaw brought a bear out of hibernation?

Then, from the back window, I saw our dog, Duke emerge from the cold water.



Duke relaxes at home.

Later, Owen explained that he’d let Duke out, thinking that the twelve-year-old GS with a sore foot would not follow me on the 2/3rds of a mile-long trail, Whenever deer see mild-tempered Duke they typically move only several feet away, while keeping an eye on him.

As Duke left the



Seven heron nests at the rookery are silhouetted.

water, I hoped his bad foot wouldn’t freeze and he would be able to climb up the hill. Carrying him was not an option because he weighs as much as I do.

As the temperature was dropping, we immediately set out at a fast pace. At the bridge over Taylor Brook, however, Duke decided to indulge in a few more minutes of canine fun by wading in the muddy stream.

Not until we were within sight of home did his sore back foot turn under, and he began to limp. Once inside by the wood stove, Duke quickly recovered from his big adventure.

A few days later, I set out for the Pond again, walking on crunchy snow that was several inches deep, but not slippery. Upon my arrival at the Lookout, a loud tail slap rang out from open water near the lodge.

That was unusual—did the beaver give the alarm due to Duke’s earlier visit? Although we had left at once, he’d waded in the water, and beavers have highly sensitive noses. A dog’s scent is close enough to that of a coyote to be a threat.

At the lodge’s north side, a small pool connected to the long channel that extended far to the east, around and beyond the family’s ample food cache. No beavers were visible and ice covered most of the pond.

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Exciting Beaver Institute News

By Mike Callahan

Despite the severe challenges we all are facing, we are pleased to report that the Beaver Institute achieved some significant advances last year. For example, just before the COVID shutdown, BeaverCON 2020, our inaugural 3-day international conference in Baltimore, was a huge success.

We currently have 23 U.S. and Canadian trainees enrolled in our BeaverCorps Professional Training Program and we continue to accept more. To achieve massive, long-term change, we are planning to train at least 100 professionals in nonlethal techniques

Connecticut Beaver Initiative

In April, we launched the Connecticut Beaver Initiative that has already incentivized flow device installations to save 20 beaver families from

Winter, Continued on from p. 10.

Someone had taken the last poplar I'd left in the mini-cove. The ice was now about an inch thick, but much thinner close to shore. I used the same evergreen branch to make an opening, where I tossed a poplar, half the dried corn, plus a few apple pieces. The rest of the corn and apples I took as close to the lodge as possible without falling in, by stepping on frozen hassocks of marsh grass.

Downstream, the heron rookery was silhouetted against a sky painted with dusky blue and pale coral clouds. It was nothing like the brilliant, molten gold sunsets of warmer weather, but beautiful in its own way. All looked well and peaceful.

All photos, except the deer mouse on p. 4, are by Sharon T. Brown.



The Oranogan County, WA highway crew builds their first beaver flow device.

trapping. This doubled our first year goal, and we are not done yet!

Our 2021 goals are even more ambitious as we seek to hire passionate staff to expand these programs and more. We are committed to co-hosting an expanded BeaverCON 2022 with Ecotone, Inc., want to double our BeaverCorps admissions, and also want to grow the Connecticut Beaver Initiative. Go big or go home!

In addition, we just embarked upon a major website update. The goals for our new website include making it easy for anyone with a beaver problem to find one of our trained BeaverCorps flow device professionals, and to create the largest library of beaver information available. We want you to be able to easily locate any beaver research study, popular article, video, webinar, etc., all in one place!

Even with volunteer staff, all these initiatives cost money, so we humbly ask that you consider supporting us with a donation, and/or volunteer to help us with our dream of creating an Alexandria-like, ultimate beaver library. To donate go to www.beaverinstitute.org and to volunteer, contact us at <https://www.beaverinstitute.org/about/contact/>. Thank you in advance for your support and best wishes for a healthy, prosperous, and beaver-centric 2021!!!

Hot Again:2020 Set Another Global Temperature Record

Earth's rising fever hit or neared record hot temperature levels in 2020, global weather groups reported...

The differences in rankings mostly turned on how scientists accounted for data gaps in the Arctic, which is warming faster than the rest of the globe. "It's like the film 'Groundhog Day.' Another year, same story record global warmth," said Pennsylvania State University climate scientist Michael Mann...."

All you had to do was look outside: **"We saw the heat waves. We saw the fires. We saw the (melting) Arctic,"** said NASA top climate scientist Gavin Schmidt. "We're expecting it to get hotter and that's exactly what happened."

Schmidt said last year's exceptional heat "is yet another stark reminder of the relentless pace of climate change, which is destroying lives and livelihoods across our planet,...We're in a position where we're pushing the climate system out of the bounds that it's been in for tens of thousands of years, if not millions of years."

United Nations Secretary-General António Guterres said, **"Making peace with nature is the defining task of the 21st century."**

The United States... smashed the record for the number of weather disasters that cost at least \$1 billion with 22 of them in 2020, including hurricanes, wildfires, tornadoes and a Midwest derecho...

From the A.P. Public Health and Science Dept. 1/14/21,

On President Biden's first day in office he signed an executive order for the U.S. to rejoin the Paris Climate Accord—showing his intention to take immediate action on what most experts call the world's most serious crisis.

Idaho Woman Welcomes Beavers, and Their Ecological Wizardry, Back to Her Land

By Eli Francovich

When Linda Jovanovich bought a 7-acre slice of land on the Palouse River 25 years ago, it was nearly treeless, other than the obligatory row of pines and a few mountain ash planted to block the wind. A straight and deep no-name stream cut through the loamy topsoil, its only decoration a long-abandoned car. Wedged between a basalt hill and surrounded by farms, the land had been cleared long ago for agricultural interests.

This time around, the Lands Council tried a different approach.

Jovanovich is no farmer. She ran a landscaping business for years and then worked as an elementary school librarian. In a college geology course she'd become enamored with the natural world. So, she started planting aspens, willows and other vegetation along the little no-name creek.

Wildlife Oasis

Two-and-a-half decades later that work has paid off. Her property is a wildlife oasis among rolling fields of wheat. Piles of tree limbs dot her land, providing shelter for birds, coyotes and raccoons. So, when beavers showed up eight years ago, she had mixed emotions.

On one hand, she was thrilled. She knew streams slowed by beaver dams and lodges create better habitat for animals and insects, collect silt and store and cool water, among other things. On the other, their ponds flooded her little creek and threatened



Chris Bachman of the Lands Council installed a pipe and cage system on Linda Jovanovich's land.

to drown her beloved trees. Not wanting the beavers dead, but also not wanting them, she called the Spokane-based Lands Council,

The Council live-trapped the beavers and relocated them to the Colville National Forest, which was the go-to coexistence tool at that time, said wildlife program manager Chris Bachman.

Four years later, the beavers returned. Trap, drive, repeat. Then this fall, the world's second-largest rodents again sauntered back on to Jovanovich's land, quickly building a 6-foot-tall dam. This time around, the Lands Council tried a different approach. "The first question is always, can we keep the beaver here," Bachman said. "Because usually when you find a place where you have beaver you have beaver there because it's good beaver habitat."

So, on Nov. 5, Bachman drove to Jovanovich's home and started breaking small holes in the beavers' dam.

These breaches, over the course of an hour, dropped the water level about a foot. Then he built a cage with the help of Ben Goldfarb, a journalist, Lands Council board member and the author of "Eager: The Surprising, Secret Life of Beavers and Why They Matter."

From the cage, Bachman ran two 4-inch pipes, placed two cinder blocks at the bottom of the cage, dropped the entire

thing into the pond and put the pipes through the beaver dam. Voila, water rushed from the pipes.

The pipes will siphon enough water through the dam to keep the pond-level manageable. At the same time, the pond won't drain completely, keeping the entrances to the beaver lodge submerged and the beavers defended from predators.

A Step Too Far

On Jovanovich's seven acres, the project seems to be working. Although the pond level dropped, it remained deep enough to protect the beavers from would-be predators, a fact nicely illustrated when Goldfarb, while trying

Continued on p. 13.



The retired librarian talks with Chris Bachman, wildlife director for the Lands Council. By Eli Francovich.

Idaho, Continued from p. 12.

to get a closer look at the beaver lodge, took a step too far, flooding his waders with cold water and sending him to shore.

Although the Lands Council has been working with beavers for a decade, using these types of tools, which are broadly known as flow-mitigation devices, is a new trick and reflects a shifting attitude toward coexistence in Washington. Although Washington has a history of beaver tolerance, coexistence has relied mostly on keeping beavers and humans apart.

Washington Beaver Bill

In 2006, a bill in the Washington State Legislature legalized the nonlethal relocation of “nuisance” beavers. It was a progressive bill, that acknowledged the oft-ignored importance of *Castor canadensis*. “Relocating beavers into their historic habitat provides a natural mechanism for improving the environmental conditions in Washington’s riparian ecosystems without having to resort to governmental regulation or expensive publicly funded engineering projects.”

While that “Beaver Bill” didn’t become law until 2012, it set the stage for Washington to become a beaver leader in the United States. “Today more than half-a-dozen groups, agencies, and native tribes are transplanting beavers in the Evergreen State, the country’s most sizzling hotbed of castor relocation,” Goldfarb writes in his book “Eager.”

Still, the Washington Department of Fish and Wildlife kills more beavers than it relocates. In 2019, 21 beavers were relocated, 386 were killed due to human-beaver conflict, and 755 were killed by trappers. However, the number of beavers killed due to human-beaver conflict dropped between 2019 and 2018. In 2018, 1,251 beavers were killed due to conflict.

That’s partly because since 2019, the

WA Department of Fish and Wildlife has run a pilot beaver relocation project. Under the pilot, WDFW issues beaver relocation permits. The agency urges landowners to “take measures to tolerate or mitigate beaver activity whenever possible” before they move the creatures.

Enter Beaver Flow Devices

Enter flow-mitigation devices, which take advantage of an interesting bit of beaver behavior discovered in the 1960s. At that time Lars Wilsson, a Swedish biologist, raised several baby beavers (called kits) in isolation hoping to discover whether dam building was a learned or innate behavior. He released these lonely kits into some running water. They built near-perfect dams, despite having never met another beaver.

Washington state is “the country’s most sizzling hotbed of castor relocation,”

During the course of this experiment, Wilsson noticed something odd. When the kits were placed in stagnant or slow-moving water, they did nothing.

Nothing, that is, until he played the sound of moving water over a loudspeaker. Suddenly, the apathetic beavers started building a dam over the speaker. Wilsson even installed a translucent pipe showing water silently running through the dam. The beavers still opted to build over the speaker.

This behavioral insight is the basis behind flow mitigation devices and allows landowners like Jovanovich the chance to live alongside the rodents. Beavers obsessively maintain their dams. But a pipe moving water through their dam, can go unnoticed, or if wide enough, unplugged.

There are sound ecological reasons, particularly in Washington’s farm country, to keep beavers on the land.

Jovanovich’s little slice of creek cuts its way through the Palouse’s rich and deep topsoil, the deposited effluent of the unimaginable Missoula Floods. While some of the most fertile soil in the world, it’s prone to erosion. In an intact ecosystem, trees and other plants grow alongside these streams, helping anchor the soil.

Efficiency-minded farmers cleared trees and grew crops right to the edge of the Palouse’s creeks. At the same time, early settlers straightened streams for agricultural purposes. This caused the water to run fast and dig deep.

These deep and relatively straight channels mean that in the spring, snow melt rushes in one headlong dash, carrying soil and whatever else along for the ride. This mad runoff is visible as a deluge of dirt-filled water entering the Spokane River at the confluence with Hangman Creek.

Restoration efforts on the part of Trout Unlimited and the Coeur d’Alene Tribe near Hangman’s headwaters are focusing on restoring native vegetation to the banks and slowing the creek down.

Beavers offer another complementary solution. Sediment from their dams will, over time, fill in incised creeks, not to mention trap water. This in turn raises the water table, promotes growth along the stream banks and increases fish habitat, said Bachman.

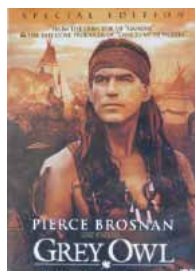
While small, Jovanovich’s 7-acre experiment shows a possible future for stream restoration throughout Eastern Washington and North Idaho.

And, if nothing else, it provides her yet another chance to commune with the natural world. “I’ve always wanted to attract birds and wildlife,” she said, adding “We just should find a better way to live with them.”

From the 11/18/20 Spokesman-Review.

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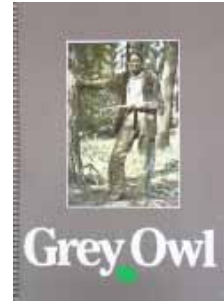
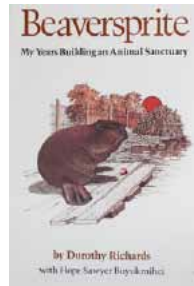
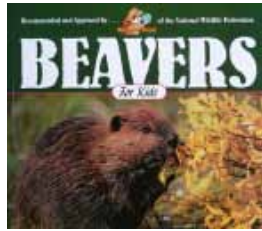
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About Red-bellied Woodpeckers



“The Red-bellied Woodpecker has a bit of a deceiving name,” according to the Backyard Birding Blog. “It is a pale white, medium-sized woodpecker, with only the slightest red tint to its belly.

It does, however, have a very distinctive round, red head, with black and white barred wings. The males have red on the entire head while the female red bellied woodpecker is red only on the neck.”

So the one at our feeder was a male. Also, Red-breasted Nuthatches have orangish bellies. Were some early birders a bit color-blind?

Adorable Kit on YouTube

When Second Chances Wildlife Rescue Center in Kentucky took in an orphaned 8-week-old kit, the Center’s founder Bridget Brouillard, knew he would need a lot of attention to thrive. So the wildlife rehabilitator took him home with her.

Lacrosse Stick in a Dam

Captive kits will use anything they can find to build dams—another one on TikToc called Beave recently became famous for using plungers!

Bridget’s Justin Beaver (JB) soon began building with toys, shoes, a door mat and even her daughter’s lacrosse stick. He needed to be in water (the bathtub) 4-5 times a day, and sweet potatoes are his favorite food.

When JB began chewing on the walls, it was time to take him outside to quarters with a big pond. He became a licensed educational animal who goes on school visits to help children learn about wildlife. Bridget says, “He’s a ham.”

Beavers: Wetlands & Wildlife (BWW) is an all-volunteer, non-profit organization created to carry on the educational work of the “Beaver Woman” Dorothy Richards who was both an environmentalist and a wildlife advocate. Officers are Owen Brown PhD, President; Andrew Mason, Vice-President; Sharon T. Brown, MS, Treasurer; and Caryl Hopson; Secretary. Other members of the Board of Directors are: James Hopson, Kenneth Koman, Matthew Perry, and Deborah Saltis. Our Advisory Board consists of Robert Boucher, MS, Gen. John Burney, Anthony DeLuca, Bernis Nelson, Esq., Darrel Norris, PhD and Elissa Wolfson. *Beaversprite* staff consists of Sharon Brown, Editor and Contributing Editors: Matt Perry, L. Ted Parker (WA) and Owen Brown. Malcolm Kenton is Social Media Coordinator. Opinions in *Beaversprite* may not be identical with BWW policies.

See a 3” video about JB, “Woman Rescues Orphan Baby Beaver,” by going to www.youtube.com/ and searching for the above title.