



# ENFIA Interpreter

November 10, 2023 Vol. 14

## A Message from the President

By Stan Trevena

Fall is a time for transition. As we move from Fall into Winter, it's a good time to reflect on this year's season at Carson Pass. It was a challenging season. The final repair on the gas stove at the station has been completed by the Forest Service.

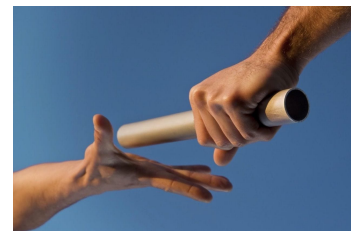
When we open the station next year, we will finally have heat! The solar system is keeping the battery bank fully charged and the Bluetti is tucked in for a long



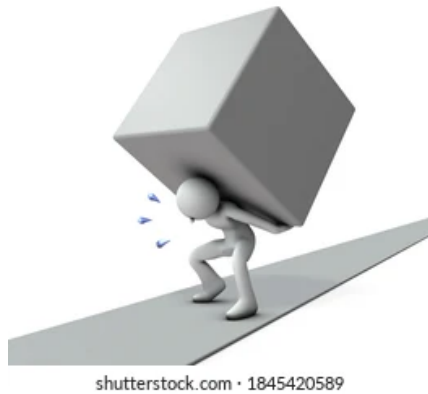
winter's rest in my garage. And ENFIA itself is undergoing a pretty major transition.

As many already know, we are working our way through a

restructuring of ENFIA. We have two new board members joining us next month, Barbara Simpson and Edi Barrow. Our two outgoing board members are staying on as volunteers in support roles. Phil Hartvig will continue with his support of our facilities and Lisa Irving-Peterson is going to be part of the new Retail Team. Carl and Keli Gwyn are in the process of handing off everything that they've done with ENFIA to new people. Keli's Retail responsibilities are being taken up by the new Retail Team. Karen Heine is handing off the Station Manager role to a team of two volunteers, as well (soon to be announced).



My focus on this restructuring is on making sure that none of our volunteers have too heavy a load to



carry. No volunteer should ever feel as if they have a full-time responsibility with ENFIA. Some of us do take on a lot of work, sometimes more than full-time, but that should be by choice and not design. I hope that this change will encourage more of our members to join us in supporting the operation and business of ENFIA.

The end of year ENFIA meeting and Docent Appreciation Lunch was well attended. It's always nice to close out the season with an event like this to thank all our volunteers for what they do. The South Lake Tahoe Community College facility was very nice and worked well for our event. It's in a location that is easily accessible to our volunteers from both Nevada and California. We will likely be using it in the Spring for a single

unified docent training for the 2024 season.

November 28<sup>th</sup> is recognized as the National Day of Giving. If you are someone who supports this effort, please consider making a donation to ENFIA (<https://enfia.org/donate>). Next year we are planning on extending our reach into the Highway 50 corridor. We are also going to be putting more of an emphasis on interpretive activities all through the forest, not just at Carson Pass. There should be plenty of opportunities for fulfilling our “interpretive” mission next year for those that are interested in helping with this goal.

I want to close by thanking everyone in ENFIA for all that you do, it is very much appreciated by so many people. We had a record number of visitors this year, even with all the challenges we had from the record setting winter. It was all of you that helped us to overcome those challenges and to make this a record-setting season.

I wish you and your families all the best for the holiday season.

## **What's Under That Blanket Of Snow?**

by Lester Lubetkin

As the days get shorter, Fall colors start coming out and the air

temperature drops into the “cold” level, we realize that Winter is nearly upon us. And with Winter, much of the Eldorado Forest will be blanketed with snow. We think of that “blanket” as serving to “put the Forest and its inhabitants to sleep”. And this is true for some animals, such as marmots and ground squirrels. But in reality, this blanket also helps to provide a living space for those forest animals that stay active all winter long. This “activity room” found below the snow is called the *Subnivian Zone*.



*Photo by L. Lubetkin*

Subnivean zone (from the Latin for *under* and snow) refers to that small space between the ground and the bottom of the snowpack (often only 1 to 3 inches tall). As snow piles up, heat from the ground warms the lowest layer of flakes, transforming them into water vapor. So not just melting and leaving a wet, muddy mess, but going straight to vapor and leaving the ground relatively dry or moist. The vapor then freezes the base of the snowpack, creating a cozy winter home: icy roof above, bare ground below. The snow above this

subnivean zone serves as insulation, blocking out the wind and keeping the temperature at around 32 degrees Fahrenheit.

So who is it that is enjoying this unique seasonal home? Some larger, more mobile animals, like deer, or birds that can fly, migrate to warmer areas where they can find food and shelter. Some of the smaller animals, like ground squirrels and marmots, hibernate for the winter. Coyotes, weasels and hares, among other mammals, protect themselves in the winter by increasing their insulation through growing a thick winter coat. But mice, voles, shrews and other small mammals take advantage of the subnivean zone where they can find food and shelter in a relatively “warmer” refuge, particularly in meadow areas. They have tunnels and paths in which to search for seeds, leaves, insect eggs and larva to nourish themselves. Because the temperature is not too extreme, these small animals don’t need to don a thick winter coat, which would be very heavy and cumbersome.



*illustration modified from Yosemite Conservancy*

The distinctive tracks and runways that we see in meadow areas after the snow melts show us that voles have been active. Voles are small, mouse-like



mammals that eat almost exclusively green grass, sedges and forbes. In contrast, shrews are insectivores, eating soil-dwelling larvae as well as insects. Shrews are the smallest mammals and must continuously eat to maintain body heat.

One thing about the subnivean zone is that it can have unpredictable hazards, such as tunnels that collapse, suffocation from loss of ventilation holes or compaction of the snow, and flooding such as during “rain-on-snow” events or late season melting.

And then there is **predation**. Coyotes and foxes use their keen sense of smell to find these small mammals under the snow. They then leap and dive into the snow to reach their prey. Owls can hear mice and voles running underground, and crash through the snow with clenched feet to reach the unsuspecting animals. Weasels can use the small tunnels, burrows and airways to access the subnivean zone and hunt their prey.

As the snow melts, many of us are familiar with the tracks left from this under-snow activity. So this winter, get out onto the snow and look to see if you can spot evidence of the

activity in this subnivean zone. Remember that our presence can damage the subnivean zone. Particularly when traveling over meadows, under low snow conditions and with heavier equipment.

Two books that might be of interest as you explore the Forest’s snowy winter wonderland:

Field Guide to Tracking Animals in Snow, by Louise R. Forrest, 1988, Stackpole books, 193 pages.

Winter: An Ecological Handbook, by James Halfpenny and Roy Ozanne, 1989, Johnson Books, 290 pages.

## Become a Newsletter Contributor

As we get ready to enter Carson Pass’s slow season I know that many of you are gearing up for some wonderful Fall and Winter hikes. We’d love to hear about them! Please consider submitting an article about your wanderings. The next newsletter will come out in February. All articles can be submitted to Robyn Sandperl at [rsandperl@enfia.org](mailto:rsandperl@enfia.org)

