VERMILION FORKS FIELD NATURALISTS -- FALL EDITION 2016

THE HARLEQUIN

Our quarterly newsletter (spring, summer, fall & winter) features nature, society news, events, and items of interest. For information, visit our website, www.vffn.ca

PLEASE CONTRIBUTE: Our website & newsletter are open to all members to contribute short articles, photos or anything of interest to the club. vffnbc@gmail.com Attn: Mary

Fall was a continuation of Summer with incredible warm weather at least for September and most of October. In some places the fall colours were awesome but in others the vivid show just didn't happen. That was not the case in the Cathedrals where the larch trees were as vivid as ever as show by these photo of Ladyslipper Lake in the Cathedral Lakes Park.

Photos by: John Henry

EVENING PRESENTATIONS

SEPTEMBER 13, 2016

SPEAKERS: DEL & TIM HALL

TOPIC: Trip through Alaska and Yukon

Del and Tim were the first speakers after the summer break. Del gave a brief report on the white bark pine. VFFN has always joined forces with PSS biology class and Parks to plant the white bark pine and to check the progress of those that had been planted the year before. An interesting aspect, as a result of global warming, each year the pine have to be planted at a higher elevation because the pine thrives where it's cooler, hence the increase of elevation.

Tim gave a presentation of a cruise and of a bus trip that they did through Alaska and the Yukon, starting in Anchorage and ending in Skagway. The account was told with a lot of humour. The audience enjoyed this presentation, especially since many of them could relate to the experiences having been on similar cruises.

OCTOBER 11, 2016

SPEAKER: **Alan Burger**

TOPIC: **Antarctic Wildlife, Life in a Changing Environment**

Dr. Alan Burger is a recently retired seabird biologist and university professor. He often goes to the Antarctic as a naturalist-lecturer on small adventure-tourism vessels.

His presentation was amazing. The audience was delighted with the photos of spectacular scenery and with the outstanding pictures of penguins and other seabirds that inhabit this environment.

Making a comparison between the Arctic and the Antarctic, he described the differences between these two places. The Antarctic is frozen land surrounding by cold water, whereas the Arctic is ice surrounded by water and islands. The Antarctic is an isolated place due to the cold currents that surround it and thus, it is always cold; whereas the Arctic experiences a warm climate due to salubrious ocean currents that allow for a variety of fauna and flora.

The downside to all this incredible show of wildlife is the affect that climate change is bringing, most noticeably the disappearance of sea ice. Sea ice is frozen ocean. Polar bears, seals, penguins, and krill depend on this sea ice.

Polar bears den on land, but feed off the sea ice, looking for seals who give birth on sea ice. Seals are the polar bears main food source. Seals and Penguins depend on sea ice because their main food is the krill, and the krill feeds off the algae that grows on the undersurface of the sea ice.

Climate change is bringing warmer temperatures to the west side of Antarctic while the east side is getting colder. The Arctic is getting warmer overall. Sea ice is crucial in these areas for the survival of certain species. Climate change is not just an academic discussion but a reality.

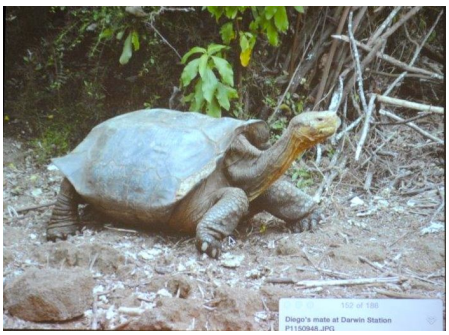
VFFN SPEAKER SERIES by Judith Sloan
WILDLIFE OF ECUADOR & GALAPAGOS, Presenter: Sue Elwell
November 8, 2016

Galapagos Islands

Our November speaker was long time Princeton resident and VFFN member Sue Elwell. Sue is well known in the Okanagan birding community for her interest and tireless work banding Hummingbirds in the Okanagan.


Swordbill Hummingbird

In September of 2015 Sue traveled with her sister on an extraordinary trip to Ecuador and the Galapagos Islands. She presented a wonderful program, made all the more exceptional, with her extensive knowledge and passion for all types of birds. Sue told us that there are more than 1,600 bird species in Ecuador as well as over 51 species of Hummingbirds. She has many beautiful photographs taken by herself and her sister of her adventures birding on her trip. These included many species of Hummingbirds, Antpittas, Albatross, Galapagos Penguins the infamous Blue-Footed booby and even the Red-Footed booby. As well, Sue had photos of several very rare birds that are seldom seen.


Diego's mate @ Darwin Station

Sue gave us quite an overview of the country of Ecuador. The country's strengths and weaknesses in regards to endangered species and the effects exacerbated by eco-tourism over the past years. The Galapagos Islands in particular are struggling to develop the infrastructure needed for protection of these extremely sensitive eco systems. Conservation efforts with the Giant Galapagos Turtles have shown significant success.They were hunted in the past as a meat source almost to the point of extinction. Sue had a wonderful short video to show us of one of these turtles swimming underwater that she was able to film as she was snorkelling.

This was a truly wonderful program. To view these many species through the eyes of someone so well educated and passionate for birding was a rare opportunity. Sue is going back to Ecuador in 2017 and we will be waiting for her next presentation.

SPECIAL REPORTS

FIELD TRIP TO SINLAHEKIN AND SIMILKAMEEN VALLEYS, Sept. 17, 2016, VFFN REPORTER: M. Masiel

VFFN and other interested groups were given a unique opportunity to join a free geology / geography field trip on September 17, 2016. The tour was conducted by Dr. Ralph Dawes, a Geologist from Wenatchee Community College and Dr. Karl Liliquist, a Geographer from Central Washington University. The two disciplines, geology and geography, were a good mix, providing a wealth of information about the Sinlahekin and Similkameen Valleys.

We met at the Tonasket High School. After a quick introduction of professors and participants, mostly Americans from the vicinity, and a few Canadians (John and me, Lee Mcfayden and her partner Pat, and Wendy Hawkes and her husband), a total of 55 people boarded a school bus for our first stop. Funnily, enough, it is an area that John and I have biked with others without giving it too much thought, except for John who is always interested in geology. On such trips the rest of us tended to just admire the incredible vistas.

The tour consisted of **5** stops. **Stop #1** Whitestone Lake with Whitestone Peak in the background (Tonasket—Loomis Road). Our focus was the mountain. **Geology**: The white rocks below the peak and on the slope were formed by volcanic ash and sculptured by eroding glacial waters. **Geography**: Karl explained that we would be looking at three lobes that formed as the glacier in the area retreated in a north-south orientation and explained a feature of the area, coulees. Coulees were formed by melting glacial water and are characterized by steep sides and flat bottoms. Karl pointed out that there were 3 coulees in this area, Whitestone and Horse Springs which have a north-south orientation, but the third, Spectacle Lake, is highly irregular because of its west-east orientation.

Stop #2 Palmer Lake (**Geography**) is a glacial trough, carved out deeply because of the depth of glacial ice above and at Split Rock parking lot, we were told that 6,000 ft. of ice rose above us! Gulp! Talk about feeling insignificant! All around the lake you can see the work of glaciation because of the land marks; terraces left behind as the glacier melted down. (**Geology**) Ralph, seen in the picture, gave an explanation of the green rock, called greenstone (metamorphosed gabro, Triassic 200-250 million years ago) found in the area, just across Split Rock parking lot. Ralph referred to this area as Quesnellia, the geological term; it includes Princeton and extends north to Quesnel and beyond. It was interesting to observe the two presenters. Ralph used his hands to describe the dramatic changes occurring in the earth while Karl use the bus to set up his maps, and used a small whiteboard to draw diagrams. Both methods were quite effective.

Stop #3 Sinlahekin Wildlife Area Field Office also lunch stop. To get there meant going back to Loomis and continuing south and entering the Sinlahekin Valley. All participants were requested to provide something for a potluck lunch and as potlucks go this was an absolutely fabulous spread! It also provided an opportunity to socialize with other participants. Afterwards, we

boarded the bus and headed back to Palmer Lake and on to the Nighthawk Custom Station turnoff.

Our Similkameen River proved to be a surprise. At one time it flowed all the way down the Sinlahekin Valley with a north-south orientation but changed its course many times and now it has a west-east orientation. As we headed out of the Sinlahekin Valley, the road followed a small creek (Blue Creek), referred to as an "ill-fitting" creek because it is too small for the valley it runs through; this creek runs north rather than south and empties into Palmer Lake. More information on the Similkameen River was given. At high water the Similkameen empties into Palmer Lake, but at low water it does not, but Palmer Creek coming from Palmer Lake empties into the Similkameen. The Similkameen River continues it flow east, goes over Enloe Dam, and down to the Okanogan River which eventually joins the Columbia.

Stop #4 Nighthawk Custom Stop Road (**Geology**) Ralph showed us examples of the granite bedrock (see picture) found underneath the glacial till. (**Geography**) The bedrock served as a dam as glacial till piled up, forcing a new direction for the Similkameen. A lake formed behind this dam, and every year silt was deposited in the shallow lake, leaving distinct layers of sand called "varves". The imprint of this lake is still visible as a wide expanse of flat land where the American customs is located. It is a beautiful area.

Stop #5 Opposite Shanker's Bend. (**Geology**) Ralph explained the rock found here as a type of chert, composed of oceanic micro organisms (plant and animal life) formed out in the ocean before the Quenellia Arc became part of North America. The layer above that became the Eocene Period. (**Geography)** Karl pointed out the steep hill composed of glacial till which became coulees formed from glacial waters, and further evidence of glaciation in the area. Stop #5 marked the end of our guided tour.

John and I then decided to visit Chesaw in the opposite direction and were delighted to find more evidence of landforms that had been explained in our tour. The scenery here was equally spectacular. The time of day made it more especially so.

Glacial erratic, in the middle of a field, Tonasket-Chesaw Road

River terraces (kames) left by melting glaciers--Tonasket-Chesaw Road

Field of Gold on Tonasket-Chesaw Road

PRINCETON BANDING GROUP YEAR END REPORT BY SUE ELWELL

It was an interesting year and good year.

There were two very interesting birds captured. The first in May was an Anna's/Calliope hybrid. Hybrids are not common and are sometimes seen where birds are expanding their range which would be the case with this hybrid. The other was actually a recap of a bird which was banded last year, July 30th in the Selway/Bitterroot Wilderness area of Idaho. It was trapped at Joann Gabriel's house. This supports the theory of the migratory route going south down the trench on the western side of the Rockies.

With the grant from B. C. Nature, we felt our group could take on a new site in Kaleden. This required a huge commitment of travel time and expense as we band every two weeks at every site we have. The only site in the Okanagan Valley is in Vernon so having a site in the South Okanagan will be important to monitor the movement of birds.

Besides our normal gathering of information, which is sent to the Canadian Wildlife and then ultimately to the Banding Lab in the States, we participated in collecting urine and fecal samples for two new studies. Canadian Wildlife/Environment Canada are doing a study on pesticide affect. The main focus is the Fraser Valley/Surrey area near fields, especially blueberry fields. We were asked to contribute samples and the site being used from Princeton is a farm with hay fields. The other study is in the beginning stages and is doing research on the biome changes, if any, when the birds start moulting and putting on fat for migration.

At the end of the year when all calculations were done the group had put in 870 volunteer hours with probably another 75 hours to make traps this fall. We traveled 4,919 kms! 719 birds (down over 400 birds from last year) were banded plus 190 recaps.

Sue gives a presentation to the South Okanagan Naturalists in Penticton.

ENERGY IN THE HOME – INTO THE FUTURE
HEDLEY SENIORS' CENTRE
OCTOBER 29, 2016
REPORT BY: STELLA HOLLIDAY

I arrived late so missed the Introduction and most of the keynote speech, however, I did catch three speakers on solar power. I also missed the heat pump speaker, energy efficiency and FortisBC rebates parts and panel round-up.

As well as the speakers, there were half a dozen display tables to peruse between speakers. Robin Ford did a great job of organizing and kept speakers to schedule with a cow bell!

Three solar installation contractors spoke: Riverside Energy Systems, Terratek Energy Systems and Argon Electrical and Solar.

Solar has less environmental impact and maintenance than other green options (i.e wind or water). Decision to install and how many panels should be made with a contractor. You need to know how many kilowatt hours a year you use from previous Fortis bills, a roof in good condition as panels can last 25-50 years with small decrease in efficiency over time and/or space not on roof, space available on your electrical panel, smart meter and how much of your electricity use you would like to cover with solar. Systems can be installed in stages and low-cost financing is available.

Everyone's energy use habits are different as are houses so comparisons are not useful. Solar should be combined with conservation and not excuse to use more electricity. It's a myth that this area does not have enough sun.

Off grid systems require batteries and other specialized equipment whereas grid systems only require panels and inverter and so are much cheaper. Grid systems allow excess power to flow from your system into the grid through the smart meter and credit to be applied that can be used when your power generation is less than your requirements (net metering). Checking bills is recommended. Credit is carried over, but not paid out. It's preferable not to oversize as Fortis does not pay much for excess. There are some issues with Fortis' methods of billing and they can cut you off net metering if you install an oversize system. (gotta love Fortis!)

Overall, great afternoon with a lot of information and very well attended. I left feeling that I wanted to install as many panels as I can afford before next summer.

This issue brings us to the end of 2016. Hope to see all of you at the Christmas Party on December 9th at Peter Antonick's house. Have a good Christmas and we'll see you in the New Year, 2017.

MERRY CHRISTMAS

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