#### VOLUME XLVII, NUMBER 2

# The Sierra County Historical Society -

### **"FOR THE LOVE OF FLORA"**

By Mary Nourse, in collaboration with Bill Copren and Corri Jimenez

ealousy would surely rear its ugly head in most marriages if the husband professed his love for Flora. This is not at all the case for Nancy Harnach of Calpine who shares her husband Bill's decades-long passion for florathe flora of the Sierra Valley that is. Bill, who was born William Henry Harnach Junior in 1944 in Whittier, CA, first had his interest in botany piqued in a high school



biology class. He discovered right away that he had a knack for identifying plants when he found over 100 specimens in a lot adjacent to the school. Though this interest went dormant for a few years, he continued to follow outdoor pursuits. He remembers poaching pheasants in an orange grove that is now the site of the University of California, Fullerton campus. When he was 18, the owners of repairing and marking hiking trails that had been constructed during the Great Depression by the California Conservation Corps (CCC). One of his vivid memories of being out on the trail was hearing the cowbells on Ollie Robinson's livestock at Harris Meadows. So began his infatuation with Sierra County.

For The Love Of Flora - (Cont. on Page 3) -

Pioneer Lodge,

near Basset's Station, hired

him for room,

board, and in

early years,

his words, "slave wages". In these

Bill sometimes worked on trail

crews for the

United States

Forest Service. He has fond

memories of

working with

Don Yegge as

trail crew".

The young

men would be

dropped off at a

trail where they

would camp

out and work 10-hour days

part of a "roving

#### THE SIERRA COUNTY HISTORICAL SOCIETY —

he Sierra County Historical Society is an organization of people interested in preserving and promoting an appreciation of Sierra County's rich history. The Society operates a museum at the Kentucky Mine in Sierra City, holds an annual meeting, publishes a newsletter and conducts historical research. Members are sent notices of Society activities, receive THE SIERRAN, and are admitted free-of-charge to the museum and stamp mill tour. If you would like to become involved in these activities or would just like to give your support, please join us!

The state of the second states of

#### Officers and Executive Board of The Sierra County Historical Society

Mary Nourse, President	James Connolly, Director
Bill Copren, Treasurer	Suzi Schoensee, Director
Don Yegge, Membership	Joe Madigan, Director
Susan Hopkins, Director	Judy Lawrence, Director
Corri Jimenez, Director	Ernie Teague, Alternate Director
Judy Lawrence, Virginia Lutes, Co-Editors of The Sierran	Gerry Gates, Webmaster
	Chris Stockdale, Music at the Mine
Dianne Bruns, Museum Curator	

If you have any suggestions or comments, feel free to contact any board member or email at info@sierracountyhistory.org

#### Become a Member!

Membership in the Sierra County Historical Society is open to any interested person, business or organization. Members need not be residents of Sierra County. Dues are due and payable each January for the calendar year.

Membership categories are as follows:

INDIVIDUAL	\$20.00
FAMILY & INSTITUTION	\$25.00
BUSINESS & SUPPORTING	\$35.00
SUSTAINING	\$50.00
LIFE (per person/couple)	\$300.00
In addition, Museum Renovation Project donations are gratefully accepted.	

Please send dues and donations to:

S.C.H.S.

c/o Don Yegge, Membership Chair PO Box 336, Loyalton, CA 96118

# Presidents Message

It is bitter-sweet that we will soon say goodbye to our cherished curator, Dianne Bruns. Dianne has made a career change and is now teaching special education in Ukiah. She and her youngest daughter Lilli relocated to Mendocino County last fall, and though Dianne will be missed, we know we will see her in the future because the Kentucky Mine has become a part of who she is. Her able assistant curator, Cory Peterman, will graduate from Cal Poly, San Luis Obispo this spring and has plans to move to an urban setting. Cory was in my high school Spanish class when he was in 3rd grade-that young man has always set his sights high, and we wish him all the best in his future.

The void left by these great employees will soon be filled by two amazing women.

Melissa Brewer of Lake Elsinore, CA will take over as curator. Melissa graduated from the University of San Diego with bachelor's degrees in English and Philosophy, earned a Master's of Library and Information Science from San José State University, and is an experienced archivist. Assisting her will be Joanie Engel from Calpine who has years of varied experience, including in teaching and in human relations at Tahoe/Donner Ski Resort. Joanie has a fascination with history and isn't a bit intimidated by the Townsend Big-Eared bats that summer in the Kentucky Mine Stamp Mill.

It should be an exciting year at the Old Kentuck! Please join us for our season opening on Saturday, May 25!

Mary Nourse

Ø

#### For The Love Of Flora - (Cont. from Page 1) -

After earning an associate degree in geology, Bill landed a job with U.S. Steel in Provo, Utah. The company was on a quest to find fluoride and extract it from other materials. Bill aced the interview when he demonstrated how to separate the fluoride in the sample using a gold pan. After two years seeking fluoride for the steel company which is now owned by Nevada Copper, the mountains were calling him, and he moved back to Sierra County which would become his lifetime home.

In June, 1971 while Bill was working at Gold Lake Lodge, he met Nancy Bradley, a self-described Sattley girl who would become the real love of his life. He had been hired by Dorothy McClenaghan, to do odd jobs, and was shoveling the lodge out from eave height snow that remained following an exceptionally heavy winter. Suddenly, two young ladies appeared on the scene-Nancy and her friend Carolyn Church- there to apply for jobs. Bill and Nancy worked together, and over time, developed a friendship based on their similar interests and temperaments. As their relationship deepened, Nancy told her boss Dorothy, "I will marry him." Dorothy poo-pooed the idea, saying, "I don't know. Bill doesn't stick with things." Well, Bill did stick around, and the family story is that Bill found his wife in a snow bank.

The Harnachs were married in 1973 when Bill was 28 and Nancy 23. They lived in Sierra City for 2 years where Bill worked for local builder, Forrest McMahon. When he and Nancy found out a baby was on the way, they relocated to a summer cabin in Sattley. They moved the bed to the living room so she didn't have to climb the ladder to the sleeping loft while pregnant. The couple's first child, Jennifer, was born in 1975 followed by a son, Charlie, in 1977. By the time Charlie arrived on the scene the family had relocated to the old Feather River Fish Hatchery in Plumas County, and even though the hatchery was closed by then, Charlie has the distinction of having been the product of a home birth at a hatchery and his astrological sign happens to be Pisces.

Bill and Nancy next moved to Portola where he worked in residential construction. He was able to utilize his skills on a personal project when they built their own home on her father Harry's ranch property in Calpine. There was no electricity to the property, so they functioned for  $11 \frac{1}{2}$  years with Alladin lamps and a "low-end" generator that could barely run a washing machine. Eventually Nancy was offered a great generator by a friend she worked with at the Catholic Church youth group. Nancy described it as being in 1,001 pieces and Bill called it "apple-crated", but with some help from a Reno machinist, he was able to rebuild it. Their kids were around 11 and 12 when they finally got power to the house. Bill and Nancy still chuckle at how they used to one-up the neighbors by cranking up their lights during power outages.

Despite falling off a roof and injuring his ankle, Bill continued in the building trade until he got into teaching the Regional Occupation Program (ROP) at Portola High School in 1983. This came about after he took Larry Champion's evening adult education class in order to have access to the shop equipment. Bill was so skilled that he was asked to cover a class for the instructor, and when Larry Champion realized that Bill was filling in on an informal basis, he helped him file the paperwork to get an emergency teaching credential. During the year that he worked in Portola, he and his students completely rebuilt a trailer for the ROP food service program in Quincy. Bill then started teaching at Loyalton High School where his construction skills classes were 1/2 ROP and <sup>1</sup>/<sub>2</sub> general woodshop for all ages through Sierra Plumas Joint Unified School District. His class's first project was to repair and renovate the school's shop. In that shop, the students also built cabinets for the Loyalton Museum and restored a hay press from the Johnsville area with timbers donated by Clover Valley Mill. As technology evolved in the building trades, he was even able to offer his students computer-assisted drafting experience. He retired from teaching in 2004, returning half-time for one more year.

For The Love Of Flora - (Cont. on Page 4) -

#### For The Love Of Flora - (Cont. from Page 3) -



Bill's interest in plants had been rekindled while he was still teaching, and he shared that interest with his family. During that time, they took a class from Jim Steele, director of the San Francisco State University Field Campus near Bassett's Station. Jim was wowed when the kids, aged 10 and 11, could give the common names of all the plants he showed them. The family decided that with a strong knowledge base it was time to take it up a notch and learn the scientific names for the local plants. In the winter they sat at the kitchen table studying technical terms in a book called Sierra Nevada Flora. In the summers the field campus became a second home for them. Jim suggested they should write a flora, a treatise on or list of the plant life of a particular region or period. The couple began in 1989 and ultimately identified over 200 species of native plants on their own property. They decided to limit their collection to sight line ridges from a spot in the center of the Sierra Valley. This 360 square-mile region has a lot of elevation variables and was described as "floristically unique" by experts in the 1950s. Even with "limits", the valley floor is still 120 squaremiles in area, so it covered a lot of territory. The majestic valley provided fodder for the tremendous herbarium the Harnachs developed. An herbarium is a systematically arranged and labeled collection of pressed plants. Bill's collection, which he recently donated to the University of Nevada, Reno is made up of more than 1,500 specimens and is stored on shelving built by his students.

Along with the herbarium, Bill's passion for botany manifested itself numerous ways. He became an expert on J.G. Lemmon, the renowned Sierraville botanist and survivor of Andersonville Prison during the Civil War. Lemmon became a friend of Doctor D.G.Webber who had brought him back to health after he had arrived in Sierra Valley as "a walking skeleton". Lemmon even named three plants after him, probably in gratitude for his medical attention and for letting him spread out his collection when he stayed in the Webber Lake Hotel. For a long time, one of those plants, "Lemmon's Clover", was thought to be extinct because of an inaccurate description. The author was looking at Lemmon's old specimen which appeared to be yellow. In reality the plant was pink, but had dried yellow.



For decades, Bill and Nancy have led native plant walks throughout the region, and even participated in herbal camping trips. When asked about his favorite wildflower it was almost a *Sophie's Choice* moment for Bill, but he settled on Camass for its significance. He considers this plant, which was used by Native Americans as a food source, to be the "canary in the coal mine" regarding potential decline of native plants in the future.

In 2016 Bill published his Annotated Checklist of the Flora of the Sierra Valley Region of Sierra and Plumas Counties, California. He considers this one of his lifetime accomplishments. Another major success is the interest in plants that he and Nancy instilled in their offspring. His daughter, Jennifer Kennedy, is dedicated to the identification and preservation of local historic fruit trees. According to Nancy, their son Charlie says he tries not to be interested in plants, but it's in his genes. Even though he isn't actively pursuing botany, he often snaps a picture of a plant for his dad to identify.

Grandson, Duncan Kennedy has a website called Sierra County Big Trees: Devoted to finding large plants around one of California's smallest counties. Along with his family, we have all benefitted from Bill Harnach's life-long love affair with flora, and we are grateful that Nancy worked with him every step of the way.

Editor's note:

Bill's complete herbarium is housed at the Fleischmann Agriculture Building at the University of Nevada, Reno. Images of his specimens can be viewed on the Consortium of Intermountain Herbaria website.

## "A DREADFUL SCOURAGE" Grasshoppers, Locust and Crickets invaded Sierra Valley

million and a start of the

By Virginia Lutes

ierra Valley lies in both Sierra and Plumas Counties at a general elevation of 5,300 feet. The fertile valley was originally settled for the purpose of raising agricultural crops. Over the years from the mid 1850's on the Valley has produced thousands of tons of hay which was cut, sometimes baled; used for winter feed and to support the many dairies and stock animals along with sales of hay being sold in Sierra City, Downieville, and Nevada towns such as Reno, Carson and Virginia.

Sierra Valley was sparsely populated during the first insect invasion from 1859 to 1861. The farmers tried their best to control and destroy the insects, grasshoppers (or locust); using ingenious methods.

D. D. Newman six miles north of Sierraville battled the locusts in 1861; they had been in the north of Sierra Valley for a few years. Around the tenth of May they arrived at the Newman Ranch. Mr. Newman described they arrived on foot, pouring around his rocky point of



land like a dark angry flood. They were several inches deep. With help from neighbors, he dug a trench forty

#### A DREADFUL SCOURAGE - (Cont. on Page 6) -

NO.

Ø

#### A DREADFUL SCOURAGE - (Cont. from Page 5) -

feet long and two feet deep across their course. The crawling insects fell into the ditch, smothered and died; while others traveled over them when the ditch was full. The farmers shoveled out the dead, but before night, the ditch was again full; Mr. Newman estimated there were fifty bushels of locust. Work was stopped because he feared the stench of the carcasses would be worse for his family than the loss of crops. Against his barn the locust piled up like snow drifts to the height of several feet, estimated at 500 bushels!

B. F. Lemmon, one mile east of Sierraville described this invasion as severe. The locust reached his ranch in August of 1861, and seemed to be heavy with parasites. Little red lice or ticks were carried on the locusts, especially under the wings. Some grasshoppers lay down and died before they had time to eat. Others crowded under buildings and into cellars, wells, cisterns and ditches, and caused a noxious stench when they died. They ravaged his fields for about three weeks, entirely destroying grain and vegetables.

Many others remembered the 1861 pest. George Humphrey drove stage through Sierra Valley, he reported that often the roads were covered; the insects would pile up so that the road appeared blocked.

A few years passed before the next infestation in 1867-1868. Fields and gardens were overrun this time by Jerusalem Crickets, and generally located in the west side of Sierra Valley, hopping and crawling everywhere. Some were said to be nearly two inches long, the color of a par-boiled lobster. The weapons used to combat the crickets were old tin pans followed by a heavy roller. First the people went to the fields with pans making as much noise as possible "herding" the crickets together. Then the roller, some two feet in diameter was drawn across the crickets by two horses, crushing crickets. As the crickets were killed, they were quickly devoured by their comrades. The horses were then turned and again the roller crushed the cannibal crickets.

The insect problem calmed down until 1878-1882. The grasshopper returned; successive springs and summers during these years saw the Sierra Valley fields and gardens nearly denuded by a myriad of tiny insatiable scythes.

Loyalton area farmers and stock raisers experienced a great deal of damage. Mr. Patterson, Mr. Shroeder, Sturgeon and Martin all had their entire grain crop



devoured in 1878. Mr. Poole got 130 bushels where he should have got 3,000 bushels. They reported that no man in the lower part of the valley harvested more than one-third of a crop. The oats were eaten, stalk and all, some wheat and barley were saved, but when the grasshoppers passed over gardens, everything was swept clean. Cabbages, turnips, peas, even potato tops and other vegetables were trimmed to the ground. Acres of land were covered from three to four inches deep with grasshoppers. If one were sitting on a mowing machine one could put out his hands and catch dozens at a grasp. Horse's heads had to be protected by sacks.

Professor J. G. Lemmon, Entomologist, Botanist and Forester, of Sierraville took on the study of this destructive grasshopper or locust. In an article published in 1879 he described the grasshopper arriving in Sierra Valley: "The grasshoppers came in through Beckwourth Pass from Last Chance Valley to the north, two years previously; flew up and down like uneasy birds, devouring the leaves of grass and grain where they alighted at first, and subsequently cutting off the stalks; laid eggs in the fall in hard dry knolls, about an inch deep, and packing them away on end, about three dozen in a nest". These eggs hatched out about May 10th of the following year. The little black young ones traveled about in droves, moving but a little way in a day, but eating enormously. After becoming winged, around July 1st, they rose in immense swarms in the morning, flew up the Adams Neck (northern Sierra Valley) and down in the afternoon, stopping after eating their fill. Following the first season of grasshoppers and the extent of crop damage, Professor Lemmon interviewed a number of farmers and was able to obtain a sample of the insect, which he identified as Edipoda Atrox, which means swelled leg grasshopper and refers to a large thigh of the hind or leaping legs, and atrox which means atrocious, cruel

#### A DREADFUL SCOURAGE - (Cont. on Page 7) -

#### A DREADFUL SCOURAGE - (Cont. from Page 6) -

or destructive. Edipoda Atrox is a generally harmless locust until conditions force the locust to swarm in great numbers, requiring a large quantity of food. Eggs are laid wherever invading swarms feed. The young born the next spring are born hungry. (The spelling of this grasshopper is shown a number of ways: atrocious locust, cediposa atrox, and aedipoda atrox are examples.)

Professor J.G.Lemmon spoke with many affected, including farmers in both Plumas and Sierra Counties within Sierra Valley: Walter Ede, A.B. Huntley of Adams Neck, W.S. Raine, D.D. Newman, and his brother, G.F. Lemmon were involved with Professor Lemmon's study.

Walter Ede (Plumas Co.) had a 1280 acre ranch; he lost \$1500 in crops. A. B. Huntley, in Sierra Valley had 800 acres of grassland, he lost \$1200. Mr. Raine, who was between Loyalton and Sierraville lost seventyfive acres of oats, hay and fall feed. He reported that the oats were in full stand when attacked about July 20th; the locusts ate for two weeks. Raine made attempts to defend his crops; with two hundred yards of galling rope, he fastened papers to it at intervals and swept them over his grain, driving the locusts before the shaking papers. He thought he had driven them out forty times, but was overpowered. Many locusts remained on the ground, laid eggs and died. He said when they arrived they were "so thick they darkened the sun".

D. D. Newman, six miles north of Sierraville lost 75 acres of oats, but a small field of rye was untouched.

G. F. Lemmon (ranch in Lemmon Canyon east of Sierraville) felt the 1878-1879 infestation was more widespread through the valley, but locusts less numerous than the previous time. In the 1879 episode, he noticed a kind of cricket attacking and eating the locust. That year he cut his grass before the main swarm of locust arrived about July 10th.

For the season of 1879 damage was distributed throughout the Sierra Valley totaling \$272,300!

Native Americans looked upon the bounty as a delicacy, so some grasshoppers were harvested and eaten. Some farmers gathered the dead carcasses to feed to hogs.

The eggs produced by the grasshoppers became a subject that concerned all. Eggs were produced in

the fall, a spadeful of Sierra Valley soil in an affected area could contains hundreds if not thousands of grasshopper eggs. The eggs were deposited in clusters, generally about one inch below the surface; sometimes in gravel beds, sometimes appearing on top of the ground. They were the size and shape of a grain of rice, and light buff in color. Millions could be on each acre for many square miles. Farmers tried to rid the Valley of the pests by covering the ground where eggs were laid with straw, then setting that on fire, or flooded the nests with water, or by using sulfuric acid. All looked forward to a very cold winter in the hope that would kill the eggs before the spring hatch.

Professor Lemmon studied parasitic foes, such as the "red silky mite", which was in Sierra Valley in great numbers during these years. The Tachina fly was of value, it swiftly chased flying locusts, darted in and deposited an egg, which speedily hatched, gnawed its way through the joints of the abdomen to the interior where it became a large many legged maggot, swelling out of the body of the locust and eating its viscera until weak the grasshopper would die. A little vellow cricket about the same size as the locusts were seen vigorously attacking the locust, instantly cutting off the head, and devoured the grasshopper. There were other parasites. The Gordina or hair worm held great promise. It would lay its eggs, and those eggs hatched before the grasshopper eggs, so the hatchlings would feast on the grasshopper egg. A large white grub proved very destructive to the Sierra Valley grasshoppers.

Fewer grasshoppers appeared after 1879, although the scourge lasted a few more years in some areas of the Sierra Valley. In 1880-1882 considerably less grain was sown, farmers fearing a repeat invasion.

Newspapers throughout California and Nevada had a "field day" with the news from Sierra Valley, headlines read: "Grasshoppers Ravage", "Hard to Kill", "Sierra Valley Plague", "Blue Times in Sierra Valley, the Grasshoppers are Making Hay While the Sun Shines".

To date these insect invasions have been the most destructive, let us hope the plague does not appear again.

million and the

12

The Sierran Sierra County Historical Society P.O. Box 260 Sierra City, California 96125

ADDRESS CORRECTION REQUESTED

#### 🕼 THE SIERRAN





()