

Desert Ramblings

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PROFILE OF PLACE

by Ray Hatton

The Alvord Basin which includes the Alvord Valley and, to the South, the Pueblo Valley, has a magnificent setting. The linear north-south gravel road through the Alvord skirts the eastern escarpment of the Steens, a fault-block mountain that towers up to 5000 feet over the valley. On a recent October morning newly-fallen snow on the crest seemed to accentuate the height of the mountain. The clear, crisp desert air, freshened by the passage of a recent weather front, sparkled and shone. To the east of the highway, the white playas or salt flats of Alvord Lake literally dazzled in the bright sunshine. Beyond, and serving as an eastern border of Alvord Basin, the barren Sheephead Mountains looked desolate and forbidding. To the south, the bulky snow covered Pueblo and Trout Creek Mountains rose over the sagebrush-studded plain.

During Pleistocene times an extensive body of water occupied the Alvord Basin. Above the base of the Steens, relict shorelines are discernible in several places. All that is left of the once large body of

water are tiny lakes such as Mann and Juniper Lakes. However, during extended wet spells such as in the early 1980s - which coincided with a strong El Nino - depressions known as the Alvord Desert and the Alvord Lake contain sizeable acreages of shallow water.

During a normal spring, melting snows feed small creeks (Pike, Wildhorse, Andrews, Alvord, for example) which tumble down the Steens escarpment carrying rocks and debris to the floor of the Alvord Valley. This water brings life to the meadows. These meadows were first noted in 1864 by Captain George B. Currey of the 1st Oregon Cavalry. Currey, who established Camp Alvord (so named after his Commander, Brigadier General Benjamin Alvord) noted that the camp was located, "... in the midst of the finest grass valley I have seen since I left the

broad prairie of the Mississippi Valley.

Undoubtedly, stock raising from California and Nevada will locate here next summer."

Currey's crystal ball was apparently working. With peace restored to the region, ranches were indeed located in the Alvord Basin,

and the cultural landscape today reflects the legacy of over a century of cattle raising. The Alvord and Whitehorse Ranches were established in the 1860s, and the names Devine, Todhunter, and Miller and Lox became synonymous with the large-scale cattle industry in Harney County. Irrigated meadows

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DESERT NOTEBOOK

by Rexbo Buch

Borax Lake is a highly mineralized, thermal lake located at the edge of the Alvord Desert in Southeastern Oregon. The lake and a string of hot springs located north of the lake create an oasis in the desert and unique environment for plants and animals. One species that has adapted to this unique environment, the Borax Lake chub (*Gila boraxobius*), occurs nowhere else in the world.

The Borax Lake chub was emergency listed as an endangered species in 1980. Later that year Anadarko Petroleum Corporation leased public lands surrounding Borax Lake for geothermal exploration and production. The final rule designating the Borax chub as endangered was published in 1982. However, Endangered Species designation has not eliminated the threat of geothermal exploration and development on the chub. In the past two years, Anadarko has stepped up their geothermal activities in the area. In 1989, they drilled their first deep geothermal test well. They are proposing to drill two new wells and deepen the 1989 well this year.

The U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion in 1980 through a formal Section 7 consultation with the Bureau of Land Management (BLM) regarding the impacts of the proposed geothermal exploration on the Borax chub. The opinion stated that the geothermal exploration would likely jeopardize the continued existence of the chub and/or adversely impact its habitat. The opinion proposed some "reasonable and prudent" alternatives for the proposed drilling which they felt would minimize or eliminate adverse impact on the fish. These included establishing a one-half mile buffer zone around the lake, conducting extensive monitoring, and providing for stopping operations if any adverse impacts occurred. In addition, they recommended that the geothermal companies make a significant attempt to determine the subsurface hydrology of the Borax Lake Area.

The half-mile buffer zone the USFWS recommended was designed to reduce potential impacts to the lake and chub from surface disturbance. At the time, there was no way of knowing if the buffer would be adequate to protect the lake's geothermal source. This is still the case today. While information from geothermal exploration has provided some insights into the geothermal system, a great deal remains unknown. The chance that Borax Lake and the system Anadarko is drilling into are separate is unlikely. If they are part of one system, Borax Lake and its associated springs are very likely to be affected by geothermal development. The volume and temperature of surface geothermal features near most, if not all geothermal plants have changed as a result of geothermal production.

Drilling and potential future geothermal energy production may have additional environmental effects on the Alvord ecosystem. Noise and traffic associated with geothermal activity could affect the snowy plover, a state listed threatened species and candidate for federal listing as threatened. The plover nests in alkali flats in and around Borax Lake and the Lower Borax reservoir. Other concerns include visual impacts to Wilderness Study Areas and the proposed Steens Mountain National Park as well as impacts to critical deer and elk winter range.

This March the BLM issued a draft Environmental Assessment (EA OR-020-0-25) of Anadarko's newest exploration proposal. The

comment period for the EA has closed, but more review of the proposal may be in the offing due to some possible procedural problems. Proposals for additional exploration and/or production drilling will probably be evaluated with an Environmental Impact Statement. If you are interested in finding out more about the current proposal for drilling, or would like to get on a mailing for notification of future evaluations, write to Glenn Patterson, Andrews Resource Area Manager, BLM, Burns District Office, HC 74-12533 Hwy 20 West, Hines, Oregon 97738.



(Bulletin Graphic: Greg Cross)

between the lower slopes of the Steens and the basin floor now produce alfalfa for winter feed for the thousands of cattle that spread out over juniper, grassland and desert scrub from Juniper Lake in the north to the Nevada state line in the south.

One of these ranches, the historic Alvord lies partially secluded amid tall poplars, weeping willows, locusts, and cottonwoods, and is located at the base of the Steens, which rises dramatically to the west. The ranch still reflects the heritage of the old Harney County cattle empires, although the storehouse and the granary built in the 1870s by original owner, John Devine, are the only original buildings in use.

In 1902, Evelyn Gilcrest journeyed with her mother from their comfortable Oakland home to join Evelyn's father, John Gilcrest, the newly-appointed manager of the isolated ranch. Evelyn described the four-day wagon trek northward from the railhead at Winnemucca: "One is overwhelmed by the immensity of the surrounding space and the engulfing quiet. The twisting, dusty track extends out and away over the next ridge in the distance, and once that ridge is topped, over another beyond.... The ranch was like an oasis, a desert with green alfalfa fields, rich meadow grasses with cattle and horses grazing." Evelyn Gilcrest remembers the wonderful fruit and vegetable garden. Freight wagons with supplies came to the ranch twice a year. Burns, where the nearest physician was located, was three days distance. Mail came twice a week if weather conditions permitted (today it is delivered three times a week).

A few miles south of the Alvord Ranch are the Alvord Hot Springs. These are not your Baden Baden spas of Germany or your Palm Springs, California. Corrugated metal surrounds a concrete-lined enclosure. Cold spring water is diverted to cool the natural hot spring water that bubbles out of the ground. In

winter, clouds of steam rise from the hot springs. These are not the only ones in the Alvord Valley. North of the Alvord Desert are the isolated Mickey Hot Springs. North of Borax Lake and the Old Borax Mine (on private property) is a line of small hot pools. And I mean HOT!

Borax was mined in the southern Alvord Valley as early as 1897. Charles Taylor and John Fulton, who had previously mined borax in Nevada, purchased 3,000 acres of "worthless desert" for \$7,000 and established the Rose Valley Borax Co. The company's Chinese laborers lived in "sod houses" built of brisk made from the borax residue and thatched with sod and tules; they were paid \$1.50 a day. The borax was processed in 6,000-gallon vats, using water from nearby hot springs, then taken 150 miles by 16-mule-team wagons to the railhead at Winnemucca, Nevada. Increased operating costs,

decreasing availability of fuel (sagebrush), reduced quality of the salts, and cheaper deposits in California combined to terminate operations in 1907. In the late 1980s only the mounds of debris, rusty boiling vats, and the ruins of one of the sod houses remain of the early-day Alvord mining venture.



The tiny community of Andrews was the focal point for cattlemen and sheepherders living in the central part of the Alvord Valley. The community was renamed after postal authorities modified the spelling of the name of Pietre Andrievs who had settled in the vicinity in 1890. The Smyth Hotel, built in 1910, included a pool hall, dining room, kitchen and living quarters in addition to the bedrooms. On Christmas Eve, 1924, fire destroyed the Hotel. The saloon with its false front still stands, but any mementos of the building's boisterous past are locked behind boarded-up doors and windows. By 1920 the census of the Andrews precinct was listed at 135. With a population of 4 in 1987, Andrews is a speck on the

Oregon Highway map, and not much bigger on the desert plain. It is one of those communities that you drive through in ten seconds -- if you're going slowly! Andrews is worth pausing and reliving a little history.

Fields is the "metropolis" of the Alvord Basin. The community, established as a stagecoach and freighting station in 1881, consists of a combined store, post office, gas station and small motel, as well as a small school. The highways connecting Fields with Denio (on the Oregon-Nevada border) and with Frenchglen and Burns are now paved. This fact alone will undoubtedly stimulate more travel to the Alvord Basin.

As I complete these notes, here in Bend, I have sharp, mental images of the Alvord Basin. The setting is magnificent. The elongated crest of the Steens is photogenic, especially in the mornings or when clouds hover over the rim. Despite the aridity (annual precipitation in the Alvord is a scant 8 inches), snow melt from the Steens and, at times, late spring rains bring greenery and the color of wildflowers to the desert landscape.

One winter day, while Long Hollow (the pass leading from the Catlow Valley to Alvord) was in brilliant sunshine, a cold dense fog shrouded the Alvord Valley. The ring of snowcapped mountains -- Steens, Pueblos, Trout Creek -- rose above the fog-like islands. On another winter's afternoon, I journeyed south along the Alvord. The desert lay still and quiet as deserts should. Only a light breeze rustled the dormant desert shrubs and grasses. I took time to run across the valley to the old borax vats and hot springs. I was reluctant to leave, but as the sun dropped behind the Steens, casting long shadows across the valley, so did the temperature. The desert had its own way of saying goodbye. In the three hours or so that I was in the Alvord that day I did not encounter another soul, or even another vehicle. It was as if the world was suddenly devoid of people.

On another occasion, a cool late spring day, dark brooding storm clouds scudded across the Alvord Valley. The desert was, once again, a place of solitude and tranquility. I'd like to think that it will be this way always.

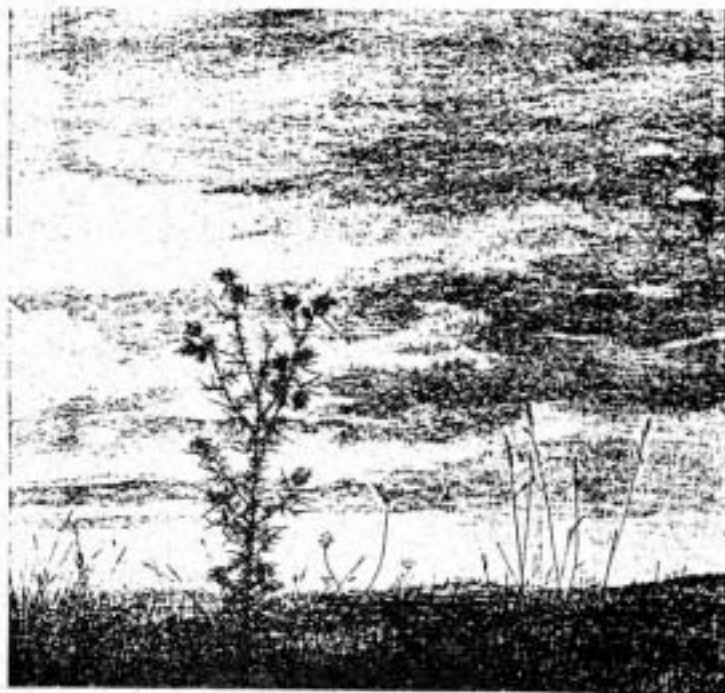
(Editor's note: Ray Hatton is a Professor of Geography at Central Oregon Community College and author of a number of books on Central Oregon's historical geography and climate. His most recent book on Southeastern Oregon is *Oregon's Big Country*.)



DESERT SKIES

Comet Austin, having passed perihelion (its closest approach) about 32.5 million miles from the sun on April 9 will be very favorably placed in May. Look low to the ENE in the dark, moonless morning skies. How bright will the comet be? The debate among astronomers and comet watchers makes it clear that forecasts of comet brightness are very uncertain. Comet expert Fred Whipple once said, "If you must bet, bet on a horse, not on a comet!" As of late March, Austin's brightness has fallen below earlier expectations. We will just have to wait and see. During the week of May 14, the comet will rise tail first in the dark sky half an hour or more before moonrise. The view will improve during the week as it rises earlier each night, while the moon wanes and rises later. After May 18, with the moon waning, mornings are again a good time to view. Austin will be nearest the earth, some 22 million miles, on May 25.

Venus will be the brilliant object low in the morning skies during May and June to the E. Mars will also be visible to the ENE. Jupiter is the bright evening "star" in the W to WNW. By late June, Jupiter will be very low on the WNW horizon, so look early.





ANNOUNCEMENTS

All meetings are held at **The Natural Resource Center**, 1005 N.W. Newport. Refreshments at 7 P.M., meeting at 7:30 P.M.

NOTE TO FIELD TRIP PARTICIPANTS

Weather is often severe and terrain rough, so proper dress and footwear are essential. Bring water and lunch. Please contact trip leaders for difficulty, mileage, etc. You participate at your own risk. Unless otherwise noted, all one-day field trips leave from the parking lot at the horseshoe pits at Juniper Park, on East 7th and Franklin Ave. at 8:00 A.M. It is always a good idea to call ahead (Alice Elshoff).

May 15: **ONDA MEETING.** The program will begin at 7:30 at the Natural Resource Center. Bob Buscher, **ONDA** Board Member will give a slide presentation on work he has done in various classes at Malheur Field Station. Schedules for this summer's classes at the Field Station will be available.

This will be our last regular meeting until September, so that we can all devote some time this summer to our individual Wilderness Area proposals. Get out there and love that Desert and bring us back information on what areas you want included in Wilderness Protection.

May 17: **Ecology Lecture Series.** *Soil Biodiversity of Northwest Forest Ecosystems*, Dr. Dave Perry, Forestry Sciences Department, OSU. 7:00 P.M. in Room 155, Boyle Education Center, COCC campus.

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FIELD TRIP NOTES

The April hike into the South Fork of the Crooked River was a great success. We hiked down beautiful and lush Pickett Canyon, enveloped in the pungent scent of blooming serviceberry, squaw current, and golden current. We lunched where this rugged little side canyon opens into the more level South Fork Canyon. Upstream were green-winged teal, pintails, and common mergansers. Yellow-rumped warblers worked the Juniper trees, cliff swallows swooped, and a canyon wren serenaded.

As we hiked downstream, we noted a complete lack of streamside vegetation, in sharp contrast to Pickett Canyon. Since the South Fork is fed by desert springs rather than melting snow, it seems unlikely that flooding is keeping the stream banks bare and more likely that it is the result of the cows that moved to higher ground at our approach. Surely the time has come to get all the cows out of such riparian zones.

Two of three WSAs here, South Fork and Sand Hollow, are recommended for wilderness designation, while a third, Gerry Mountain, is not. It seemed to all present that the three units together would make a very nice addition to the Wilderness System.

A CALL FOR ARTICLES:

This is a gentle plea from the editor to you, the members of **ONDA** for help with this newsletter. As spring turns to summer, I hope you will have the chance to spend more time visiting those special places you love and are trying to protect. I hope some of you will take the time to write down your thoughts and impressions to share with the other members of **ONDA**. I am always in need of articles. If you are interested in contributing a piece about a particular place, or a particular conservation issue, please call or write me. The success of the newsletter depends on your participation. Thanks.

**Check the date on the mailing label
for your
ONDA membership renewal.**