Field Journal
1898
Vernon Bailey
May 6. The outfit arrived from Plumas Falls, Oregon, last night with Bunny Green in charge. The horses were rather tired from a 300 mile drive in 9 days and are still poor after their winter resting. Got our supplies for 2 weeks, packed up and started at 10 a.m. for Stillwater, where Chehalis is at work. Move 25 miles to 1st ranch on the Carson River and camped at about 4 p.m.

Found splendid road over generally level platea, with hard bed worst of the way. In places the sand has drifted into big dunes & ridges. There are great bare alkali platea, smooth as a floor at a narrow gap about 12 miles from Waddsworth, also masses of Thistles & Dandelion covering the original rocks to a thickness of 6 or 8 feet. It is fresh & very pretty, looks like carpet of a brownish color.

Vegetation very scattered & scarce. Much bare ground, no grass, or only a few scattered bunches of Bisporosis. Many Lizards & horned toads, few birds and plenty of small mammals.
Ragtown to Stillwater

May 7. Caught 4 Dipodomys deserti and a Thamnomyos meadensis. A Peromyscus, none of which I succeeded in catching at Wadsworth.

Ragtown is the old name of the town, consisting of one small ranch, where the stage road strikes the Carson River. The name has been changed for the P.O. but the place seems best known as Ragtown.

Followed down the Carson River about 8 miles and crossed to south side, then continued parallel with the river, or with its general course. The Carson River is at present nearly full of water and is quite a river, 8 or 10 rods wide, too deep to ford. The water is muddy but fairly good-pushed. The banks are abrupt or cut squarely, the channel is very winding, though the current is rapid. A narrow line of big Cottonwood trees along the river banks with but few interruptions.

The whole valley is nearly flat but with many water channels and sink flats and ridges and sand dunes. Sarcobatus vermiculatus is the most...
Stillwater

Characteristic shrub among the many baking species, litheleaf crotalaria is 12 common. A. lentiferus (?) grows in many low places. Escada, affinitiunis, Chrysac, and Tetradynamia are abundant. Grass is scarce.

Many ranches are maintained along the valley near the river and are irrigated by ditches taken out of Carson River. Alfalfa is the principal crop and much stock is wintered in the valley, partly on the tilli varaibles partly in alfalfa hay.

Arrived at Stillwater at 2:30 P.M., and camped at Mr. Kent's place. Made up skins and skeletons till dark.

A clear warm day, very pleasant.

Came about 25 miles.

May 7 went down to the marsh where Carson river empties into North Carson Lake. Saw Microstigma in tubes along shore, saw a great many waders and Coots and some ducks. Saw two packs of glossy ibises – the first I saw.

Clear warm day.
May 9 - Caught 4 Micrones so we decided to stay another night. By

May 10 - Caught 6 Micrones & a few other
things, took up traps & started east.

Over the bow range of mountains
bounding the valley. The range is called
by different names on each different way.
Chesin lick range, Painut Hill, Silver Hill.
The people of Stillwater have no names for
them. We entered a gully about
east of Stillwater (5 1/4 miles) and
followed up a steady but not very steep
grade to near the summit. Camped
at an old well. Made up sticks
and put a few fires. Camped at
2:15 P.M. Covered 7 1/2 miles, mostly
up grade.

The hills are very barren, with a
few scraggly junipers near the summit.
The upper part is covered with
sagebrush and some bunch grass.
Sandy ridges are fairly white with
great Crepis. Pteridota.
Osobbo Valley

May 11. I caught only Peromyscus rodens skyi and tenuis. Albertson caught Peromyscus, Dipodomys and a Microtus odos. We shot a pair of Orioles & I. passerineum, saw Sialis arctica & Cyanophaga.

Broke camp at 7:30, followed up the gulch a mile to summit and down the east slope of the Rita to Osobbo Valley. On way the teacher tells me the south end of Fairview Valley. Crossed this valley due east and entered a narrow gulch called West Gate on its east edge & camped at a well.

Came 25 miles & camped at 4 P.M. Dissected road 5700 ft. morning camp, 6100 on summit, 4600 in bottom of Osobbo Valley, 4750 at camp.

Osobbo Valley is about 15 miles wide and opens out into Fairview Valley to the north, most of the valley flowing that way. A big bare wind swept dry sink 200 yards across the middle of the valley, which is incised on the south by low ridges & hills. No old Lake shows up till on the slopes. The bottom of the valley is 650 ft. above Stettina & just about the old bed of Lake Stettina. A low gap opens out into
Carson Sink Valley & another to the south.

The mountains surrounding the valley are low and as bare as the Funeral Range. They are mainly volcanic rock, and mostly covered with barren soil, and slides not very cliffs or rocky peaks.

The vegetation of Deer Valley is

section & dwarfed - Eriopogon bernardii, Astragalus compactus, A. canadensis, 

Graziella, Petrolium, and a little Diploria are the principal shrubs. Oryzopsis

umbreus grows in abundance over the 

sandy bottom of the valley and cattle come from Fairview Valley to get it. A large flowered

Eremostachys grows in bunches of 5 & 15 flowers, 

a plant in such abundance over the 
sandy bottom of the valley as to give the ground a white appearance for miles. 

We rode through this fragrant flower garden for 5 or 6 miles, slowly through 

deep sand. Malacothrix canadensis, 

a dark blue delphinium - a white or pink 

Amarilis - a yellow Cineraria held to make 

this desert valley a brilliant show.

Dipsacus - Phcedryx - many other small 

trees are abundant in the sand and a horsetail had thrown up hills all along.
1898 Westgate to Eastgate

May 12 Caught Perdix, Dipperings, Oryctolagus, Ropermuthus, Porousaens & Rhodosparsphilus. Waited to make up skins and did not start till noon. Proceeded east across the south end of Whitlock Valley to Mr. Balsom ranch at Eastgate and camped at 3:30 P.M. Arrived at Westgate 14850, at Eastgate 5550. All the way up a slight grade and up an dry water course.

The valley is dry and covered with the usual set of grass brush, Artemisia Tridentata & ephedras, Atriplex cuneata, Herbstia, & Limonium. Salads in Verenicola - Tuley, Zelkova, & Rupicola. Last saw all around. Mr. Grant to the NW has some snow on the peaks & scattered timber over the sides, is probably 8000 ft high. The route east to west - Mrs. Dalton calls them the Pecos Hills - are quiet high, have some snow on the summits & a hillside of possibly pinnipes 10000 ft below this top. Rained all evening for authors.
May 13. Caught 2 species of Mottom +
one Pronghorn - a Pecorhinos.
Our first Tram Horse floated and died
was put Nellie in the backboard & went
. Followed up various valley proof
potshills in a S.E. course to summit of
low range at about 10 miles from Eastgate.
Then down south slope about 5 miles
and camped at old station where
a gulch had been dammed to hold water.
Found enough rain water in the pool for
the horses, so camped at 2 P.M. +
sat crops + made up skins.

Averred road 55 50 at Westgate,
6,800 on summit, 6,200 at camp.

Saw some Tram Horse at 6,200 foot and
camped at its lower edge. It is about
of rhumb wide over the range, is marked
by Artemisia tridentata as a dominant plant,
by A. arbuscula, by few Prong - Pino
varophylla, and by presence of Atriplex
grafia, Sarcobatus, Euphoris, Artemisia pinnata
+ Tetradynam.

9 of Lamas pictus + S. Wallis + saw
departury, & L. wuttelli.

Followed down the gulch about 2 miles to end of a valley that slopes off to the SW., that way to the end, then camp.

Valley. Turned to the east, crossed the end of this valley at only 100 ft below camp and climbed up an easy grade to summit of the low range west of Don Valley. Then across a wide, level, long valley of sage plain about 20 miles diagonally across to Don (some 6000 ft), then over the crest of the Shasta Butte, down to River Valley. Distance about 30 miles.

Arrived at camp 6:50, end of first valley 4:50, top of first ridge 7:00, bottom of Don Valley when crossed 8:00. Don 7:40, Summit of Buttes 8:00, River River 7:30.

A full set of Senecam plants begins at our first nights camp, and extend across the end of Lodi Valley. From summit of first ridge across Don Valley.
is almost pure Juniper. A little Euphorbia characias puts up to lowest sort of valley. The dominant shrub is A. triplinervia, A. euboea, Guttiferaia eustigma (?). Other shrubs are the most prominent plants. Junipers fine white-barked evergreens come down to edge of valley on both sides. The little shrubby bush and S. Cordifolias are common in. The gulch at head of Long Valley, the first seen on the trip. The peaks full flowers very pretty. Species sought

Good grass all day. Water in shallow pool in bottom of lore valley. One little stream from shoebes about 5 miles from here. Water again at door in gulche with door. No room till in stuck trench. Long Valley extends away south & north, sloping lower each way and averaging perhaps 15 miles wide. Good roads run up & down the valley. The Paluts Mt. on the west are nearly as high as the Shoebes in the west.

Killed 2 Sage coeks & 4 Deer without in middle of Lore Valley.

 forwarded P.A. is amusing camp of 200 or 300 people, 2 stores & site.
May 15. Rained in the night and snowed nearly all day. Staid at camp waiting up supplies and writing reports. Too much soft snow on the ground for trapping. Cold and disagreeably.

May 16. Rained and snowed by spells in the morning, dried off so we could sit traps in afternoon. Set most of the traps for lupus Identaters.

May 17. Cleared up at last. Caught 3 lupus Identaters in our traps and templates shot one yesterday. Caught a lot of Puscommus Identaters in our traps.

Started up the valley of 10 A.M., stepped at Goodings ranch 4 miles down camp and arranged to keep our mail brought up here. Passed the upper ranch in the valley 8 miles down all camp and of worth of Indian Creek, then followed up Reese River, crossing it 23 times, to upper end of canyon and camped at 18 P.M., 7750 ft. altitude. Bad weather just after storm to 16,900 ft. lower camp on Reese River.
Head of Reuss River

We are now close to the west base of the rocks in a sandy, brushy, and rocky country with plenty of good grass, lots of streams, and deep ditches. No bear now.

Noor lives nearer than the valley 8 miles below, some stock ranges over 70 miles, and deer tracks are common.

For 10 miles below as the road runs up a rough canyon, following the various rivers, there are gulches with numerous and often steep leads. A double row of big willows borders the stream, which is not too wide to jump in places.

May 18

Visit well up in the creek and got an idea how the country lies. So heavy and cloudy I did not go to the top returned & camped & cut timber. Snow squalls all day, cold & raw.

May 19

Visit to traps and made up offseason. Shot a few things.

May 20

Cleaned up at last and gave us a pleasant day.
May 21. Took up traps and made up our specimens. In P.M. (3 o'clock) packed up and started up the slope to make high camp. Put a good pack on Jack as to lighten the load. Followed these rivers up about 4 miles and then up a little branch that rises in the gulch on N.W. side of Ave. Dome. Followed this creek up about a mile or two and camped at entrance of a long gulch in a grove of stunted Populus tremuloides. An old wagon road lies some extended farther up the gulch, probably for white pine timbers, but is not used, possibly beyond our camp. Willows and poplars border the stream above. The ridge is covered with sagebrush and a few Asteragraceae. Camped at 5:30. Came up 1000 ft from 7700 ft lower camp to 8700 ft upper. Shot some stakes. Shot a lagomor.
May 22 - Set traps and hunted around camp to get the lay of the land before climbing the mountain. Hope for another day tomorrow to go to the top.

May 23 - Snowed all night. Woke up with fingers of snow on my face. Still snowing and windy. Continued up & go up the hill. Took a long tramp over to the head of the main divide. Reached on the south side of the Mt. but did not get much, found where a sawmill had been run and the available timber cut on the head of this creek. The pine timber is serviceable but logs 16 feet long, 2 feet of box & 1 foot of top can often be cut from it. Little portable mills have been put up & the logs cut from each patch where enough of the pines grew

The snow soon melted so nothing could be tracked - Saw old deer signs but none fresh. Saw an Aztec or a Bandogger but failed to get either. Tramped up to the Coyote hole but got nothing in them. Shot a
tarantula of each species. Fished snow all gone at night.
May 24. A cold night but unusually clear, bright morning. Started for the top of Arc Dome, but went slowly up the canyon shooting lizards & other reptile & birds. Followed the canyon about 3 miles past the second old mill then turned up a ridge and reached the summit at 2 P.M. Found the climb very easy except for soft snow part way. A good horse trail leads to the summit & one could ride all the way. The slopes are formed of broken shingle in rolled small pieces mixed with soil. There are few abrupt cliffs or ledges. The soil is a dark gray igneous material filled with quartz, possibly an old lava. It weathered rusty red in color, but is dull gray when broken. The peak is in the form of a long, steep crescent with the concave, steep inner slope to the N.E. Other peaks & ridges partly complete this crescent from what I believe to be the rim of a once gigantic crater. The bottom of this amphitheater is filled with little ridges & hills of yellow material that looks like pumice. If an old crater the rim is much broken &
evidently very old. The circle is probably about 6 miles across. Streams lead out of it to the north through a narrow gash and down to Santa Cruz Valley.

The upper part of the mountains is covered with snow except where blown from exposed ridges. A great part of this is new snow, but old drifts lie along sheltered slopes many feet deep, and the gulches are full of old frozen snow. Streams break out about 2000 feet below the summit and flow down half of the gulches. The top is still frozen.

The mountains are relatively barren. A narrow belt of Pimus pledges fills the Hudsonian zone on the N.E., or sunny slopes, comes down nearly through the Canadian. It forms a good timberline of much drifted trees of about 1000 feet below the summit on the S.W. Below this patches of Encelia californica cover certain sides slopes, the dry warm slopes but a great part of the slopes is just sagebrush.

A few little plants grow on the summit and a yellow lichen covers much of the rocks.
On top are a lot of old rock buildings
that must now be quite large houses.
Two rows of old walls stand 4 ft below
the summit on the S. side. Two buildings
or circular towers on top were fitted up for
some kind of instruments.

The view from the top of the hill
is one of the widest and finest views
over the whole Sierra Nevada range
to where it is hidden by the White
Nuts. In the view and all of the desert
ranges and mountain valleys between.

Mt. Waynodo and the Granite Butte to the
south stand at the end of a long
flat region, or open valley country
extending south from Clearcreek to the
foot of Mt. Waynodo. This open Often
stretch of country seems to come up
into Smoke Creek valley, but the cut
hides part of it. Smoke Creek Valley
extends south and away to the north.
It is largely an alkaline flat. A little
water stands near its middle.

A few ranches are scattered over it
and woods cut across in many
ways. The Smoke Creek hill has
some snow and scattered timber
but are not high. They are very barren. A high and very barren range is in plain view. Another range to the west is near Ruby Hill. The Shoedores and Pabutes are rivers capped to the north. The Charleston Hills are not always very sunny peaks to the south. The White Hills are part of the range. The Deserts are very sunny. The Deserts are very sunny. This is a little worse on May 28.

May 28  Broke camp and came down the canyon to Ruby River Valley and camped at Mr. Goodings Ranch.
Set traps for Thieves in the fields.

May 29  Followed up Indian Creek over the divide and camped about 3 miles down the south slope.

May 30  Continued down the gulch to Bridge Dale and camped at the ranch. Came about 11 miles.
May 31. From Cherradah we traveled east and N.E. over mostly level country for 20 miles and camped at Peavine Ranch on Peavine Creek in the south end of Smoky Valley. Followed around the edge of the mountains in the great open basin that stretches south and is 20 miles wide, level, and rather barren. No sagebrush grows in the valley, and Sarothamnus fortunei, Artemisia tridentata, and Artemisia frigida are the dominant plants. There are other desert shrubs and a little grass in the valley. We passed several springs and saw a good many cattle.

Passed San Antonio to our right down in the middle of the valley.

June 1. Staid at camp all day, made up skins and Oberthuer set traps. I was too sick to go out.

June 2. Left Peavine and continued north up Big Smoky Valley about 20 miles and camped at the first near water of the hot springs, 13 miles north of Woods Ranch. Some large springs came out.
of the sides of the valley and form creeks that run a mile or so toward the bottom of the valley. The water is not very cold. Crocuses grow in the springs and streams and lots of little fish (like Cyprinidae, I think?) live in them. Wet meadows and water holes bring lots of birds. Fattish spots of this sort feed along the sides of the valley.

The Troutlake hills rise abruptly from the edge of the valley with a high, very steep and steep slope. We rode all the way to the top and the range is so steep on this end we could not see the valley bottom from the peak.

The big alluvial plain in the middle of Smoky Valley begins here and runs with a dozen miles of now.

Many Transition Zone plants cover down into the sides of the valley from its mountains. The little track is conifer and is loaded with huckleberry, fragrant madrona.
June 13th Sailed east across the valley into the east side & up a canyon past old mining camp, Jefferson, then over a high divide & down a long canyon to the edge of Monitor Valley, then north 6 miles to Belmont, 50 miles. Camped at Belmont.

On the west side of Stony Valley there are many transition plants — Sagebrush, Bigelows and Peach + Shepherdia, on the east side the plants are all evergreen with no sagebrush. Stonewort Fern continues well up the gulch with Sandstone Bracken as a dominant plant. Then Junipers, Pines woolly & Ceanothus begin and reach nearly to the summit but a strip of Barren sage along the ridge and covers the high places on both sides. Mt. Jefferson, close on our north is said to be over 12,000 ft. high. It is well capped with snow but does not seem to us as high as are seen.

Shot a young Coyote and an Antelope. Saw Elephants, 2 Smells and Porcupine hounds in Stony Valley.
June 5th. Brought a new fisted box and started north down Monita Valley. Passed ranches at 5 and 13 miles and kept on to some crossings at 27 miles and camped. Followed the west side of valley till the way wide. No good roads or hills and very little change of level. Monita Valley averages about 10 miles wide, is generally smooth with little streams coming right down the sides. The bottom seems to have no drainage or uniform slope, though with few alkali flats and little land. Our camp with an alkali flat surrounded with salt grass flats.

The mountain is a high ridge resembling Stein With running along east of the
The valley as the northern part of the Warson Range. Some snow lies on top, the higher slopes are bare of timber. Junipers & Pinyon cover the lower slopes. On the west of the valley the Jefferson Range rises in some distance as a high range and Jefferson Peak is said to be one of the highest in the higher peaks in Nevada. It is steep and sharp with little vegetation and a bare tundra of Pinyon.

The range runs lower to the north and is generally covered with Juniper & Pinyon.

The soil of Warson valley is generally rich & rich but dry and cold.

The vegetation is generally scattered and quite varied in running, where the shade is a single dominant plant, patches of hundreds of acres of juniper. Where plots of the valley, Artemisia tridentata covers miles of area almost solidly, then Arctostaphylos takes the ground.

6 or 8 square miles of Melotus mucronatus sudden on slopes of the valley, and almost 6 miles. Gutierrezia salicifolia covers wide flats. Cercocarpus montanus or salt grass hold the alkaline flats. Artemisia frigida & Artemisia californica - coniferous - grasses are abundant in places.

The plants show a constant mingling of Sonoran and Transition species, and the valley seems just on the line of transition.
Monitor Valley

June 6. Remain at camp waking up specimens & settling traps.

June 7. Packed up & started early.

Following down the valley north—Passed Diaries Punch Bowl 3 miles below camp. This is a great hot spring that has built up a caliche mound 150 ft. high & 300 ft. wide, dome of morted bowl shaped. In this center is a kettle shaped cavity 75 ft. across, 30 ft. deep to the hot water with perpendicular caliche sides. The water is very clear, nearly boiling. Hot springs break out all around the base & the water no longer fills the bowl. Warm springs abound in the vicinity.

On down the valley a mile to the Empires Ranch where we got a lot of specimens from a warm spring creek. 5 miles to the west round, 5 miles more to a little creek in bottom of valley & camped. Made specimens & set a line of traps. The valley continues to slope to the north.
Mounts Valley Hill

June 8. Instead of following around the valley bottom we cut over a ridge and came into the foothills of the north end of Mounts Valley Hill. On about 10 miles we struck a small creek and followed up it on an old road into a gulch of Mounts Valley Hill. Camped up 4 miles from the main road.

June 9. Shot Lariats and Calamus gnats in foreground so concluded to stay over a day.

June 10. Broke camp at 9 AM and came back to the main road. Crossed several little creeks and came to The Willows, a deserted ranch. Then we swung to the east around The Willows to the further extension of the valley and bivouacked at a big spring in the valley bottom. Then east to vats fresh going lower lower with the valley (32 mi) (13 afternoon).
June 11. Caught only Porognathus romulus & Porognathus.

Traveled 12 miles to Eureka, got mail & supplies & went on 4 miles east and camped on Simpson Creek.

Continued down grade from our morning camp through the Devil’s Gate into Diamond Valley, crossed the south end of valley and up a long grade to the town of Eureka. A deep water channel has been worn from Monitor (Cent.) Valley through the Devil’s Gate and water stands in its deepest places now but does not flow. The channel leads down to a sink in south end of Diamond Valley. This valley opens out to the north and looks as though it might connect with the Roop River East Humboldt River drainage. If so a slightly more humid climate would produce a stream from the south end of Monitor Valley to the South Fork of Humboldt R.

Devil’s Gate is a water cut through a highly tilted line of marly sandstone.

Diamond Valley is another wide, swallow up, sagebrush valley with fast little water. It seems to be mainly Socoran.

Eureka is a typical mining town of past glory, located in a gulch or with our street.
Eureka

June 13. Waited till noon & returned to Eureka for telegram but it had not come. Returned to camp & wrote reports & packed specimens.

June 13. Got message to wait in P.M. Finished reports & mailed all up to date and 8 packages of specimens. Too late to break camp when we returned from town.

June 14.

Started early and followed south to head of Simpson Creek, over divide and down Pinto Canyon into Newark Valley, then turned north and followed up this valley along west side. Camping early (5 P.M.) at a big spring.

Departed at morning camp 6:00, at summit 7:00, bottom end of Pinto Canyon 10:00, edge of Savannah Zone in Newark Valley 13:30. Camp 1:00, bottom of mud flat probably 50 ft lower.

Newark Valley opens out to the south by two branches that are lost behind mountain points. To the north is nearly the whole length of the Diamond Range, with a great bare plateau for the whole length of the bottom. The valley is 10 to 15 miles wide. The Diamond Range runs along its west side, the south
Newark Valley

and its Ruby slope to east.

The valley is surrounded in flora and fauna
and has a full set of characteristic high
prairie plants.

Big springs boil up along the west edge of
the valley bottom and each one makes a
type of salt march. A few small streams
came down out of the Diamond Hills, but
rarely extend to the bottom of the valley.

A few scattered ranches are not in
a very prosperous condition. A good
deal of stock is raised in this valley.

Came about 25 miles.

June 15. Started at 7 AM. Traveled north
till noon along the side of Newark Valley.

Lunched on the divide between this and
Huntington Valley, then turned east
across the end of Huntington Valley and
up a low ridge toward 690 of the Rubies.

Camped near the summit of this ridge in
total sun and some pines at a small camp.

Came about 40 miles.

Arrived at camp 6000. On ridge at
noon 6950 but the real divide between
the two valleys is lower, about 6200. 

estimate.
Newark Valley shows two well defined old lake shores on all sides. The lower is 150 ft above bottom of valley; the upper 250 ft above. The notch in north end of valley is slightly if at all higher than the upper lake shore. It well marked old channel cuts through the rim and down Huntington Valley. Undoubtedly Newark Valley when an ancient lake at its highest drained out to the north by the South Fork Humboldt River.

The ridge separating the two almost continuous valleys is low, often formed not high enough to keep plants of species from ranging across. Injuries can down on the ridge in places and transition species might easily cross this bridge from the Diamond Range to the Rubies.
June 16. Continued up the grade about 1 mile to the summit, then down the east slope of the Rockies to the south end of Ruby Valley. Then north along the west side of the valley and camped at noon about 7 miles from south end of lake. Came about 15 miles.

Aneroid at camp 6,600, on summit 6,850, edge of Dawson jar in valley 6,300. Camp at edge of tubs 6,100. Left for junctions and Pion Pines at about 6,400. Set traps in marsh, shot much mule.

June 17. Started late and traveled north along west edge of valley to end of Ruby Lake (now ankle) and crossed to ridge to Franklin Lake and up the valley to Ruby Valley P.O., then back 2 miles to Franklin Ranch and camped.

Came about 25 miles.

A seemingly intersectible line of ground separates Ruby and Franklin lakes and the valley is all one. A little strip of solid rose washed across the valley and cut in two the one continuous body of water.
Ruby Valley

Old shorelines all around the valley show the lakes to have been at one time at least 100 feet deep and to have filled the whole valley. Ruby Valley is about 60 or 70 miles long and from 10 to 20 miles wide. To the south it drops over a low pass into Long Valley, to the north over another low ridge into Cloves Valley and over the lowest pass of all on the east to Butte Valley.

The lakes and lake marshes occupy the greater part of the bottom of Ruby Valley. Ruby Lake is a great lake widest about 25 miles long and 4 to 10 miles wide. The water is apparently about 3 feet deep all over it but hidden by big mutes (Scirpus lacustris) except in a few open parts. A large fungus grows on the marshes around the edge of the water. The upland part of the valley is a narrow belt usually one or two miles wide sloping from the lake down to the marsh. Along the west side of the valley numerous big springs and seeps break out of the foot of the lake or run to the marsh. This narrow strip is mainly mineral land.
June 18 Left Hawkins Ranch, (2 miles, with Ruby Valley) and followed up the wood road into the Wil. Climbed a steady steep grade for about 4 miles and climbed 7400 feet. Averaged 2000 feet. Camped in groved pines on N.E. slope. In P.M. climbed up to 9000 feet at 12 tops while Aberholer cut out a time of steps along its streams and springs near camp.

June 19 Sunday—Wrote letter in camp and sent the boat to F.E. at noon then went up the mountain to train. Caught nothing of special interest. Aberholer got a wound. Left camp.

June 20 Got only Wednesday morning and scramble in tops. Shot lagomars. Aberholer got another wound. A lot of Juniers, Calasterotopus, & S. maggas. Made up a nice call of P.M.

June 21 Went to top of the range, and climbed one of the peaks near the highest but not the highest. Shot Juniers and Calasterotopus with Juniers & Lagoons.
Ruby Valley and Valley.


June 23. Pack up and came down mountains to Ruby Valley P.O. got our mail and traveled about 4 miles south and camped in a colony of Sphenophorus oregonus.

June 24. Moved camp about 4 miles farther south to a point convenient to Franklin Lake, camped at mouth of little canyon coming out of the hills. Hunted around edge of lake and set traps.

June 25. Caught a few things and made them up. Set more traps.

June 26. Took up traps and started for Elk. Followed down valley to ridge between the two lakes, then traveled west and followed up a little stream along a canyon over the mountains by Hastings Pass. This is in a low gap of the range, where the limestone of its southern half and the granite of its northern halfmeet. The low area is all granite on the road and is a pretty country.
There are great masses of rock cropping out but the ridges are mainly smooth, rounded, greasy, and green. Hundreds of pretty little streams run down the gulches and are usually bordered by willows and groves of poplars. Flowers color the slopes: yellows of Wyethia, Baldamowija, blue and yellow of lilies, blue of iris.

We camped a couple of miles down the west slope of a little creek and slope quite with good water, shade, wood, and grass to the horses' knees. The best camping ground we have had on the trip. Made last our mornings catch of animals and wrote until the rest of day. Set a few traps for Wierstus and Thomas.

Come only 10 miles, and are about 55 miles from Elko, where we are due Jan 28.

Arrived 6150 at camp in Ruby Valley, 7400 on summit.

Sceptrum lilies are found on the summit and down the west slope.
Huntington Valley

June 27. Started at 5:30 and traveled rapidly down grade, soon reaching the bottom of valley, then turned northwest and passed the streams. Passed Skelton and many good ravines. The valley is exceedingly fertile and well watered. Many good streams can be drawn from the Ruby Mts.

The valley is mainly Sarcozem with Diploclava gravelly, Abaphy compressa, Actinium symmetricum, and the common grass plants. The Actinium triplinata and arbucula are neutral and Sarcozoma is alkaline.

Saw a dead Perdix in the road a lot of thrushes. Saw a number of Leptides idahoensis and got 2 specimens. SAW several leptides compressa and lots of contuballus. Skeins of orange is numerous along fields and meadows, and S. willis is found on the ridges and dry prairie meadows.

Shot 7 Sage grouse, 4 young and 3 old. Saw two flocks of young and 2 old.

Came about 25 miles and camped at ranch 13 miles from Elko.

Aneroid read 6,900 at camp in morning, 6,100 at first ranch in edge of valley, 6,800 at Skelton, 5,600 at camp.
June 28

Started early and reached Ely at 10 A.M. - 13 miles.

Left Ely, South Fordy Valley and crossed a broken ridge and down into the East Humboldt Valley.

Found Walter Fisher at 9 A.M. and Oberholser left us on the 7:15 P.M. train.

packed supplies and outfitted for the westward trip.

June 29

Left Ely at 4 A.M. and followed down the valley near Molena, then turned over a ridge and down to Carlin. Then over a longer ridge and camped at 8:30 P.M. near Carlin, at 6,400 feet. Came about 85 miles.

Collected 2 specimens of little fish, a shiner and a chub, in creek about 4 miles N.E. of Carlin, a branch of Humboldt. Shot a badger near Ely, a s. o. skunk saw plenty of motties & deer, iodinous.

The valley is becoming very dry and dusty. It is straight upper Ewingam in valley and mainly to top of ridge 1200 ft. higher.
June 20. Started at 6 A.M., followed down the gulch about 6 miles to the river, then followed the river past Bascom's and camped at a sand 10 miles from Battle Mountain. Came about 35 miles.

A big tribe around E. S. of Battle Mountain ought to be a good place for waterfowl, geese, rails, rodents, and marsh birds.

July 1. At Battle Mountain I took a train to Winnemucca, leaving Wetter picker to bring the outfit along the valley. Reached Winnemucca at 5:20 P.M., got my mail and did some writing.

July 2. Wrote most of day. Fished out about roads across the Washoe Plains, to cut off my horses.

July 3: Sunday. Caught Prolopus, Ultramaris pictus, Womans norma, Micolopha, and lots of I mollis. The food arrived at 11 A.M. Got own supplies and crossed down valley about 10 miles to camped in bag Marshal. Mosquitoes are very bad.
Humboldt Valley

July 4. The horses went back to WinneEMA, which delayed & gave us a late start. Followed back the valley day NE. To Mill City and camped 4 miles west & over. Camp about 10 miles, Road very rough. Horses pretty tired.

The sand dunes are covered with tracts of Ponderosa & other plants. A very ill looking & sickening disease. Saw one Antelope jerboa-like hares, about 20 miles west of WinneEMA, S. wellie, Zavies picture, & others.

The desert is seen by very few. By hilly, rough, & unapproachable. Prickly pear plant is an abundant plant on the desert, and through fields on it.

Arrived at WinneEMA 5500, Camp 6900, at The Red's Ranch.

July 5. Travelled west about 12 miles to the bend of Humboldt and then leaving the river crossed the valley. Straight west to Willow SPr, they crossed the low side of the Pahute Ridge, and down the gully on the Sulphur River road, passed the well and camped at spring in gully. Camped 30 miles with good roads, the largest artios of but 12 miles between water places. Good wells but not much grass at camp.
T公司将唐河镇南面的五里桥村作为试点，将村内四个自然村，即牛王村、张王村、李王村和徐村，合并为一个自然村，实施新型农村社区建设。
July 7.

Traveled S.W. about 14 miles on the level, bare, flow-like plains, and then out on the sagebrush edge of valley and to the Borax works near north end of Granite Playa. Then around north end of valley to Deep Hole in Suicide Creek Valley, then 10 miles further west to a big spring & camped. Came 34 miles and camped at 4:30 P.M.

Arid soil at camp 4050, on Playa 4000. Deep Hole 4075, camp 4100. Almost no change of level all day.

8 miles is the longest distance between springs today, though the first one after starting (in middle of playa) has very good water. There are many hot and cold springs along the way and some are of great size & depth. At Deep Hole are circular spring 50 or 60 ft wide. It is said to be over 200 ft deep. It is cold and pure. Others are hot and alkaline. Stopped at Badger & caught a Puddingtail & holing out on middle of the Granite Crust.

A warm day. Good roads. The big spring at camp is full of little fish. Said to be native minnows in Deep Hole.
Up Smoke Creek

July 8. Walter Fisher caught 3 big jaded Porcupines, Bipodamp werneri, Noturus desertorum (gray wall), + Porcupines Trui in a few traps set close around camp. There are many large sand dunes in the valley where I should expect to catch Bipodamp desertol, but there are none near our camp. Lupins too are coming into camp and sat around close to us. Casey shot a bolo through the camp one with the rifle, just to mark it.

Started at 7 AM & traveled west 15 miles to the Salt Washes, then went to Smoke Creek 8 miles beyond, then up Smoke Creek to the big ranch 9 miles from valley and camped 8 1/2 miles, only a 15 mile space without water. Road not very good, a little sand & some uphill.

Arrived 4:30 at mining camp and all along edge of valley. 4:35 at quick camp. Lizard numerous along side of valley, collected 6 species + beetles. Several Lower Sonoran Thumbs - Dakota glandulosa, Atascobia laevigata + others, are conspicuous on the hot south slope.

Put 2 species of young Winemers in lower end of Smoke Creek near where it dried up.
July 9  Followed up Smoke Creek 2.2 miles and turned out over the rim onto mesa above and then continued along top of canyon to head of creek on S. side of Observation Peak.

Over a low divide east of mesa and down to Horns Ranch mesa summit, then 6 miles further down to Moulton Ranch on Madeleine Plains to camped. Came 2.5 miles over string road mostly up hill.

Arroled at camp in morning 4.300, top of canyon 4.700, spring head Smoke Creek 5.500

Summit 5.800, Moultons 5.500.

Observation Peak stands on N. E. corner Madeleine Plains, is a sharp, symmetrical crater cone. The whole Smoke Creek country is a lava plateau through which the creek has cut a deep canyon. Spring occurs out of frequent intervals along the canyon + above. One immense spring throws out a good big stream, the source of Smoke Creek. In this spring are 3 kinds of fish, 2 native minnows + trout.

Transition zone plants predominately on mesa above canyon with Juniperus verticalis + Cercocarpus arborescens + above the summit. The new species of Artemisia covers nearly half the ground on mesa, astrotelca is common.
Madeline Plains

July 10 Left Mortons Ranch or traveled around the north edge of Plains to the Anacdes stage and then north to Van Hornes. Came about 30 miles. Anacdes showed with change of level and the old lake shorelines run from about 50 to 100 ft. above the bottom of valley.

Saw lots of eagles dis a shot of half grown young which proved excellent meat.

Lunched. Bought 4 boxes of Van Hornes and got a rather hot start. Trunk across the valley to N.W. and over the rim and down into Ash Valley. Crossed it and over another low point covered ridge down a long slope to Adin, then 4 miles further down Big Valley and camped at a ranch.

Came 40 miles, camped after dark.

Anacdes at Van Hornes was 5400, on ridge west of valley 5700, in Ash Valley 5250, in next ridge 5430, at Adin 4300, Camp 4300.

Ash Valley is a basin perhaps 4 by 10 miles in extent surrounded by large ridges. The bottom is marshy. It is all ranches. Apparently an outlet cuts through a canyon at north end.

Big Valley is a great dry sagebrush
Big Valley.

valley with extensive meadows along flat rivers and creeks. It is surrounded by low interior pines covered, ridges of loose formation, but the valley is too level for timber. The soil is hard, clayey, few normal signs seen. The pines timber and its set of plants are different from the direct flora begins on the west edge of Ash Valley grows more dense toward west, pines covering all the ridges and higher part of the country.

Pines ponderosa, P. jeffreyi, Libocedrus decurrens, Eucalyptus californica, Pseudotsuga, oaks, all the more desirable little plants. P. jeffreyi is more abundant than ponderosa but the two are growing together.

The ridges are transitional zone, Ash Valley is doubtful but may contain an element of Sonoran. Big Valley is evidently Upper Sonoran though not strongly marked in its flora.

Our first view of Shasta was from the ridge west of Van Horn's. It is in plain view from Big Valley & we can see the top of Mt. Lassen.
July 12. Started at 6 and wanted an hour in Biber, getting a new singletree, so we came only 27 miles, camping a mile west of Pittville.

A mile west of Biber we entered the pine forest that comes down to a steep Big Valley on the south-west side and climbed over a ridge, forest covered lava ridge, and down to Tall River Valley.

Averaged 9.250 at morning camp, 7.200 at Biber, 5.700 on top of ridge, 3.400 at Pittville at camp.

Met a lot of new plants on the ridge, Pinus lambertiana, Akele (granulis?), Bremondia, Quercus californica + Q. garryana, Assinopus, faxifolia, Klamath 3 species of Coronarius, Cultus, Plus tulefota + the last few species found on the west slope.

Tall river valley is evidently Sararum though transition covers the ridges around. It is a farming valley and looks green from the hills. Alalfa + hay are the principal crops. Some fruit orchards are seen, mostly apples + pears.

Saw Severus californicus, Tuiras severus, Severus × Strombidae douglasii, heard a Severus pastor.
July 13. Crossed Fall River of Swazey, came through Dana and up Bear Creek, and camped 2 miles above Bearflat. Came about 27 miles, and are said to be 35 miles from Boston.

Arrived at camp at 3:40, at lunch place in timber 4125, near Bear Creek camp in ridge 4453, at Camp 4300.

Climed valley country, saw Pittills to Swazey with meadows along the streams and fields of grain on dry ground; a big area of waste land where very little grows. We pressed south of the lake from which Pittills rises but not enough to see the lake marshes. The river just below the lake is deep and blue & 100 yards wide, many times larger than Pitt R.

Soon after passing Swazey we entered pine rock forest and continued in it the rest of the way, gradually rising higher, leaving its oaks & metingother conifers. Camp through about 17 miles of beautiful forest of large, tall, symmetrical trees and scattered shorty undergrowth. Pines ponderosa is the commonest tree through Eggertseam. Pseudotsuga, Abies grandis, & Libocedrus are common. A few Pinus.
Up Bear Creek

grow along some of the marches high up as a few trees strikve us seen.
A big Shaggy and 4 species of Quinault from the beds of underbrush. Large areas in the heavier part of the forest are often and smoothly carpeted with Quinault pristatus. The wood is lovely. Many of the Pines ponderosa, Ponderosa, Redusty and Abies reach 4 to 8 feet in diameter and a height of 150 feet.

Water is scarce along our road but a few small streams & grassy patches were passed. Only 2 canyons seen after leaving seven of these only stage stations.

The road is good with few hills & a gentle grade. Dust is deep and of a reddish color, but less troublesome in the woods than out in open country.

Fall River Valley is Savorian, with such plants as Grada, Walnut, Amelung, Escholzia, & peaches, apples, plums, and Catalpa trees.

Most of the present is transition, but a touch of Canadian was reached on the highest ground.
July 14
From Bar Creek we climbed an easy slope for a few miles and then down into McLoud Creek Valley, then on N.W. to the old site of Elk Haven and camped.
Came about 25 miles, encamped at Bar Creek.
4:10, on ridge 4575, McLoud Creek 3900.
Camp at Elk Haven 3375. Good trail but very dusty. Through splendid forest most of way.
Pinus attenuata was first met on top of a ridge at 4500 feet on S. slope and seen along in places after.
Boreal fir on top of ridge and north slopes, but most of the country is transition. Possibly an element of Seveau.
Dipodyctys Racemosus near Elk Haven. One fresh beechback. Shot a bat.
We are said to be 15-17 miles from Sisson.
July 15. Started early and continued over good but very dusty roads to Sisoon. Met Dr. Merriam and party at the edge of town and turned back up the mountain to Wagon Camp and established our base camp at about 5,700 feet. After passing the Big Well at McCloud, we climbed over a high ridge and then descended to Sisoon.

From this date on Dr. Merriam kept the journal.

Vernon Bailey,
<table>
<thead>
<tr>
<th>Month</th>
<th>Distance Traveled</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 4</td>
<td>25</td>
</tr>
<tr>
<td>May 7</td>
<td>25</td>
</tr>
<tr>
<td>May 10</td>
<td>14</td>
</tr>
<tr>
<td>May 11</td>
<td>25</td>
</tr>
<tr>
<td>May 12</td>
<td>14</td>
</tr>
<tr>
<td>May 13</td>
<td>15</td>
</tr>
<tr>
<td>May 14</td>
<td>30</td>
</tr>
<tr>
<td>May 28</td>
<td>12</td>
</tr>
<tr>
<td>May 29</td>
<td>17</td>
</tr>
<tr>
<td>May 30</td>
<td>11</td>
</tr>
<tr>
<td>May 31</td>
<td>20</td>
</tr>
<tr>
<td>June 4</td>
<td>20</td>
</tr>
<tr>
<td>June 3</td>
<td>28</td>
</tr>
<tr>
<td>June 4</td>
<td>6</td>
</tr>
<tr>
<td>June 5</td>
<td>4</td>
</tr>
<tr>
<td>June 7</td>
<td>17</td>
</tr>
<tr>
<td>June 8</td>
<td>22</td>
</tr>
<tr>
<td>June 9</td>
<td>20</td>
</tr>
<tr>
<td>June 10</td>
<td>32</td>
</tr>
<tr>
<td>June 11</td>
<td>16</td>
</tr>
<tr>
<td>June 14</td>
<td>25</td>
</tr>
<tr>
<td>June 15</td>
<td>40</td>
</tr>
<tr>
<td>June 16</td>
<td>15</td>
</tr>
<tr>
<td>June 17</td>
<td>25</td>
</tr>
<tr>
<td>June 18</td>
<td>4</td>
</tr>
<tr>
<td>June 20</td>
<td>15</td>
</tr>
<tr>
<td>July 1</td>
<td>28</td>
</tr>
<tr>
<td>July 2</td>
<td>28</td>
</tr>
<tr>
<td>July 3</td>
<td>18</td>
</tr>
<tr>
<td>July 4</td>
<td>30</td>
</tr>
<tr>
<td>July 5</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total: 428</td>
</tr>
</tbody>
</table>