Summary of the trip from Capt. J. C. Barlow's notebook:

Act. 1. Whipple to Unita 42 miles West to Clear Creek Cañada, Total 48 miles.
   1. Clear Tanks 18 m.
   3. To General Springs 12 m.
   4. To a Spring in Nezlequéne 20 m.
   5. To head of a Fork of Cotton Creek 16 m.
   6. To fork of Cotton Creek, coming in from E. 16 m.
   7. To Cotton Creek 21 m.
   8. To Carryo Creek 16 m.
   9. To Forest Trail 20 m.
   10. To Washfield 16 to 18 m.
   11. To Apache 14 m.
   12. To Apache.
   13. At Apache.
   14. Black Creek 20 m.
   15. Washfield [Creek] 23 m.
   16. Lake Creek 16 m.
   17. San Carlos 18 m.
   18. At San Carlos.
   19. Coyote Springs 15 m.
   20. Wheat Fields 24 m.
   22. Jumito Creek 21 m.
   23. Wild Rice, 23 to 24 m.
   24. Price Creek 21½, 22 m.
   25. Fossil Creek 14 m.
   26. Verde 15 to 20 m.
   27. Whipple 4½ m.

Notes on the natural history of the expedition conducted by
Brig. Gen. George A. Crook, U.S.A.,
Commander the Dept. of Arizona.
From Whipple Baracks, Prescott, A.T., to San Carlos Indian Agency, via Forest Park and Fort Apache, and thence back to Whipple Baracks, via Yuma City, Fossil Creek, etc., between the dates of October 1st and October 27th, inclusive, 1884.

By
Edgar H. Means,
2nd Lieut. 1st Artillery, U.S.A.,
Surgeon and Naturalist of the Expedition.
October 1st - The dining at Fort Russell was speeded up to keep pace. The ladies of Fort Verde accompanied the command in the post ambulance. Mrs. Russell and Mrs. Means and daughters spent the night on camp on Clear Creek, and returned to Verde after breakfast in FortԼcrooks ambulance.

The only birds seen were:
1. Hammond's phalarope.
2. Common rock cisternine.
4. Semipalmated plover.
5. Bullock's oriole.

The only mammal seen were:
1. Pacific scrub jay.
2. Sage thrasher.
3. Sandhill crane.

October 2nd - Marched to Mud Springs. The trail remaining clear creek for a mile or two. The stream is bordered with sagebrush (Satureja), cattail, and a kind of ash which resembles in appearance the beeche-tree, and has edible leaves very like the maple. Large masses of garapini grow over the trail and are laden with grapes. There are some Alpine pines along the bank of clear creek which are raised her. Fishes are abundant. Also a little and a fish. After leaving clear creek the days march lay over a rough west half (bad country) road over a range of mountains to a level plateau. These were some scattered cedars and occasional patches of scab oaks and greasewood. On the top of the plateau passed through groups of cedars from which were formed some Woodhouse's Fays and other birds.

At Mud Springs, where we encamped, there is a fine grove of some juniper trees, the first seen on the trip.

A party of horses were seen on the hills and oaks.

The Birds seen were:
1. Red-winged blackbird.
2. Sedge-filled marsh hitch.
3. Hack.
4. Saltmarsh sparrow.
5. Western Grasshopper.
6. Western Grasshopper.
7. Song-bird albatross.
8. Locust-thrush leecheep.
9. Dignified Darrow.
October 24th—Continued.

Common all along the route.

12. Percala—A number were seen among the scout cars on the hillside. Note, a few "tweet." They usually retreat to the interior of a bush at your approach, and do not take to flight until you have close upon them, when they usually alight on the top of a scout car, and close down into the dark, close when approached.


15. Agnus. Several flocks were seen along the route.

17. Sericurus carolinus, americanus. Mourning Dove. One seen in the juniper when we made our second camp.

19. Camped among the pinyon.
20. Myiarchus formicivorus, Californian Woodpecker.

21. Not seen until we reached Camp 2, where we first found the pinyon. They were abundant.
22. Amytornis fulvescens, Lewis Woodpecker. Lewis Brook, saw several on the way and at Camp 2. Have never met with this splendid bird.

24. Red-tailed Hawk. One near Clear Creek.
25. Other perches, galeries. Western Red-tail Hawk. Several pairs.
26. Accipiter coeurn, Cooper’s Hawk. Several seen.
27. Accipiter trogus. Sharp-shinned Hawk. Several seen.
28. Pyrrhula platyrhynchos, Sharp-shinned Hawk.
30. Eubucco gambeli. I only saw one, which about half-way to Camp 2. Speckled.
31. Cyparax massena. Massena Quail. A flock of Massenas was flushed by the camera, except from the road, near the head of Clear Creek.

I personally saw one of the scattered birds when I was up behind the quack from, and afterwards two more, each of which I shot as it flew from my feet. I have never seen these beautiful subjects alive before, but as I saw one of them after the ground, I got no idea of their affiance or habits. They lay very close, and arose with a sudden sound and a singular vocal expression. They are elegant game birds.

32. Ardea herodias. Great Blue Heron. One seen on Clear Creek.

The following named Mammals were seen to-day.

1. Antilocapra americana. Bongtong Antelope.

Mr. Murray saw a small band on the mesa above Clear Creek.
2. Camelus lentulus. Bogtong "Black-tailed Deer." Several brood shot one of these in a valley near New Tank, a young buck, whose horn were in the wind. It was an excellent sight, as the horns were hardcast and the antler could have been preserved neatly, but it was unfortunately injured before I could.

3. Lepus californicus californicus. A few Northern Jackrabbit were seen. One at Mud Tank 2.

5. Pteropus californicus, californicus. Southern Red-tailed. Fresh sign at Mud Tank 1-Camp 4 and other places.

*Specimen collected:


October 31st—Marched to Barker’s Butte, 16 miles.

Before leaving Mud Tank 2, I carefully explored the pine woods in the vicinity, and shot thereon as follows:

1. Speckled Woodpecker.
2. Lewis Woodpecker.
3. California Woodpecker.
4. Sharp-shinned Hawk.
5. Red-tailed Hawk.
6. Four-colored Vanga, and several Passer." The others seen at Camp 2:—

1. Bufo montana. Rocky Mountain Laxidera. A large flock among the pines; the least seen saw.
2. Red-cockaded. A few Red-cockaded Laxidera, the first seen since last spring, more fluttering among the low brush.
4. V. carolinensis, acutula. Slender-tailed Nightjar.
October 3.

7. Phrygilus socialis. Western Tanager.
8. Synthemus oreganus. Maximilian's Jay. Large flocks were flying about at daybreak, uttering their loud, plaintive cry. They were very abundant in the vicinity of the tents, doubtless coming there in search of water. They seldom alighted, but flew among, struggling through, crossing loudly. Occasionally they would drop out of the crowd and then alighted over the June 28th, but they were too shy to be easily shot.
9. Cercornis aquaticus. Common cowbird. Large flocks were seen just at daybreak, and some smaller flocks remained about the camp as long as I stayed.
10. Cercornis aquaticus. The American Cowbird was common, and came about camp. When the parties left to visit the Indians, they were quite bold and apparent enough to hear the sound of the song.
12. Pius borealis. Pus. Western Woodpecker was common enough among the flowers.

Very few birds were seen after leaving Camp 2, and the last Woodpecker's day was seen at Camp 2. The last Virginia finch was shot at Camp 2. The last Virginia finch was shot at Camp 2. After leaving Mud Tanks, the following named species of birds were seen en route to camp of Clarence Butler: 1. Sitta mexicana. Western Bluebird. Common.
5. Astrophilus placitis. A few among the cacti.

This species is common, more so than the previous one. The bird is long, with a pointed tail, and it is common in the higher elevations. It is beautiful and graceful in flight. It is described as "bicolor," meaning "two-colored." The upper parts are of a dark brown color, with a white line on the wing extending from the base of the wing to the tip, and a white band across the head. The lower parts are white, with a black line down the back and a slight pinkish tinge on the sides. The bill is black, and the legs and feet are grayish-blue.

8. Urophorus atrogularis. Red-backed Snowbird. This strikingly colored Snowbird was seen not with (nor Baker's).
The object of the expedition was to collect and observe all the mammals, small birds, and insects which are almost certain to be encountered. We hope to do this, however, if this work is normally carried on. I am, however, still shooting from the back of my dog and find that he stands very well, and that I am able to kill birds on the wing from his back. He is a lean carnivorous beast, but when I have a long day through the trees I am glad to have the assistance of the dog. We have found that this is so great that I can kill off any wild birds, and he will stay with the pack and I come back.

The following mammals were the only ones seen: 1. Mammals in the forest. 2. Horse's Squirrel. To Captain J. D. Russell goes the honor of first adding this species to the list of mammals seen in the forest. The Captain saw the first horse's squirrel among the trees soon after we got out into the true forest. I have not seen the species again, but he hopes to find them to-morrow. 3. Columbia bridge, Northern Idaho. Here we reached the edge of the true forest, after leaving the isolated groves of Inindian brush and true forest at Mud Lake. We passed through a belt of greyish country with many "cedars" and junipers, which we noted and later explored, and here we found the only "Jack Rabbit" seen on to-day's march.

3. Common Rabbit. Male has "Black-tailed Hair." Several small bands or single deer seen now by our attention. 4. Gray Fox. Labeled "L. Smith." This singular, subservient animal appears to specially delight in the loose piebald coat beneath the true minked, and the abundance of their mounds and burrows attest their abundance everywhere in this true province. We have not yet been able to procure any specimens, being unprovided with proper traps.

5. Mammalia americana. Mule Deer. "Black-tailed Deer." Several small bands or single deer now seen by our attention. 6. Shepherd's Labeled "L. Smith." This singular, subservient animal appears to specially delight in the loose piebald coat beneath the true minked, and the abundance of their mounds and burrows attest their abundance everywhere in this true province. We have not yet been able to procure any specimens, being unprovided with proper traps.

7. Mammalia americana. Brown Bear. General Hook shot a half-grown male, the first one we saw. The bear shot a few miles from our last camp at Mud Lake. His first shot broke the front legs. The bear was moving at the time and the shot aimed at first behind the shoulder. A second shot through his head finished him. The General built a fire to mark the place, and the packers went after the

Bear with a pack-saddle; but after they had bandaged the

wound and took the bear on the should, the mule gave up and

got away from them and back to the forest, and was lost. By

watching the mule the packers found where the bear had

taken off. A second mule was then sent back, but

was likewise unmanageable and the men then followed

the bear and brought only the skin and hind quarters

in camp, which they did not arrive until late at night.

I was very sorry to lose this opportunity of procuring a

true adult skull of the mammal galapogous—the largest

bone found in this season with the exception of the

Eel, which is still found in considerable numbers in the

San Francisco stage.

Documents collected:


middle 3° and elev 62°; elev. 14. Shot at Mud Sinks.
Shot at Camp 2 (Mud Sinks). The first one I ever killed.
Bell, plumbeous-black, greyish at base; mandible.
Jaw and last plumbeous-gray black, plumbeous-
black, slightly purplish, at base. 550; 535; 172; 110;
Culmen, 30.5°; gape, 36; tarsus, 22; middle 6° and 
evendrome. 11.
No. 337. Agrostis lutea var. torquatae; Lewin. Woodshovel.
282; 520; 167; 120; culmen, 27; gape, 33; tarsus, 24;
male, 30; culm. 11. Color as above.

October 4, 1854. Left camp near Baker’s Butte at daylight, 
and marched to General Springs, 12 mile.
We left our camp at a strong downs and a deep ravine, and 
for some while found the road to be a gradual ascent, 
with occasional whiles in climb. We had scarcely got 
well on the road when Captain Parshall, who rode just 
behind Lieutenant Emmons, came upon a large flock of 
jeep on the road, and shot a jeep one foot thick. It 
rode ahead while he was hunting the jeep, but 
my steward and private Lieber, my watchman, and turned 
off to the left into the woods. We had four horses and 
(righted out for a jockey hunt. The place was very 
rolling, with many deep ravines that intersected it; 
and I soon became aware that instead of 
the jeep, the dog, most valleys were grown up with tall brush 
and vines and the vegetation was very interesting and 
new to me. In a thick, narrow ravine grown up to 
chute, a tree whose leaves lost for the first time, were 
some handsome low maple leaves whose leaves were 
not marked with red and yellow as the maples in 
New York State in autumn. The principal timber is the 
Jezleid yellow pine, growing a hundred or more 
and half, with straight trunks. I saw the first Pine 
Squaw (Pine abutilon) among them. It was swaying 
about the grassy turf when I saw it first, and then 
found a tall pine nape I shot my first species. 
Birds were common in these valleys, but the number of 
different species rather small. Beneath the shrine 
I discovered a species of Rattlesnake Plantain 
(Lygodon).

—

No. 338. The first jeep of the day. — Numbers of jeepkins have chattering 
for logs and stones and come in oak tree. They have
which commands an alluring view of South San Juan.

At the left of the trail a series of hollows descends and
at them the soil, in several of which deciduous trees,
underbrush and herbage grow, in striking contrast to the
open, bare woods through which we have been traveling.

By far the most remarkable, however, is the alarming silence,
which continued a second, and then even longer on the next

Near general ceasing, I passed a man who had just
seen a large elk of the kind, but I directed for them to stop.
When I reached Camp I found all the stables occupied
by grey Shire and Stiles engaged in bleating the last from
the General.

Our only mammal seen to-day was:

2. Derived Canis latrans, Mexican black wolf: left my
avenue at the head of a partly wooded ravine, such as I had
already described above, and after walking along little
way, heard a loud, cragging sound as some heavy
animal like a bear walking on dry branches. I soon
arrived, however, that the sound was caused by one of the
\rightarrow
3. Derived Canis latrans, "Mexican black wolf": now put me the young male preserved, but
\rightarrow
4. {
5. Derived Canis latrans, "Mexican black wolf": now put me the young male preserved, but
\rightarrow
7. Convus viridiflavus, Say. What they must say.

October 4. -

15. Pouter virginiannus.
17. Falco columbarius. Region unknown.
18. Falco punctatus. Peregrine Falcon. One was shot, sitting upon the rim of a stone basin.
21. Dendrocopos canadensis. Western Red-tailed Hawk. (Note.
22. Mallard's gallinaceus. Inner Mexican Furkey. Captain Grant still shot one from a flock of birds.
23. Leucorhina montana. One with his barrel and wounded another.
24. Leucorhina montana. One more from the same flock.

I found dead at General Springs.

25. Columba fasciata. Band-tailed Pigeon. Saw one bird flying. Other members of our party followed him from the ground, where he was eating acorns beneath the pines. These acorns are as large as chestnuts and the pigeons feed chiefly on them.

27. Icterus atriceps squamatus. Rocky Mountain Chick-adee.

30. Parus borinquen and Ladder Springs, A.T.

32. Icterus atriceps quadratus. Rocky Mountain Chickadee.
33. Drymaeus spectabilis. Rocky Mountain Thrush.
34. Cassidix canadensis. Magellan Mountain Thrush.

37. Icterus atriceps quadratus. Rocky Mountain Chickadee.
38. Icterus atriceps squamatus. Rocky Mountain Chickadee.
42. Dendrocopos canadensis. Black-capped Chickadee.
43. Cassidix canadensis. Rocky Mountain Thrush.
44. Drymaeus spectabilis. Rocky Mountain Thrush.
46. Cassidix canadensis. Rocky Mountain Thrush.
47. Leuciscus clarki. Parke Woodhouse. Albert's Cone Squirrel.
49. Drymaeus spectabilis. Rocky Mountain Thrush.

October 5, 1884. - We left camp at daylight and marched to a ravine in the Magellan Mountains, 13 miles, of

The trail lay through pine woods, down a wond, with only grass and flowers in the empty spaces, varying and beautiful gathering straggles. I saw the shrubbery (Alchemilla) and many medicinal species of the family Asclepiaceae. The shrubbery was thick and dense, covering the lower ground in thick ravines. In similar places were

baskets. Here were containing a large species than the

Eastern Nuttallia, Stunaria. Near General Springs I saw some enigmatical specimens of a species of the order of the

Gallaeophyta, more than two feet high and quite

Small. The march was along the foot of the pine rock for the greater part of the way. The rains obtained from

June to this time as the came out upon the edge, was as beautiful as ever, although the height was less, and the walk not perpendicular but sloping towards the base, and

covered with shrubs whose leaves had assumed the

lowest autumn leaves, forming a red and yellow

marginal to the green center of leaves and grass,

Lemma, which a few weeks and besides were scattered

occasional patches. At first a series of short

valleys and rocky leading down right. Brushwood

brought to the foot of our trail.

The following animals were the only Mammals seen:

- Lepus caliginosus (albinus), Say, Prairie of Detail, avian, standing at night.
- Steeple rock hawk of both form which were ruffed up.
- Wren. Came up to camp, the Steeple hawk landed on the branch, and opened its bill, with the cleft and black, the heels had been set for us on the road. The back of its head.
October 5.

The most characteristic of the Squirrel's rifle bullets, the first shot after the recent General's bugle was the only one I have ever seen. Shot in the middle of the woods.


The first bird shot after the General's bugle was this, the only one I have ever seen. Shot in the middle of the woods.
October 5th.

This region, I neglected to mark a note of it in our Journal.


Very common indeed.


Two shot in a bushy pasture.


16. Mephitis varius macula. Red-naped Woodpecker. One shot on a spruce trunk, not far from the ground. It was striking close to the root of a fallen pine tree. I shot it from my saddle. Adding to the task for a long time as did the first.


19. Melanoderus torquatus. Lewis’s Woodpecker.

A fine one.


23. Falco columbrodus. Region Hawk. One or two.

24. Falco peregrinus. Harpy. American Peregrine Falcon. One adult was shot, but fell dead directly into Lord’s Prairie, where it could not be recovered. Killed perfectly dead, I would have been able to get it as it was sitting on a dry tree above a wide ledge, but flushed over the ledge and was lost.

25. Columba fasciata. Band-tailed Pigeon. I shot my first specimen upon the topmost bough of a huge pine. It was much injured by falling so greatly during the night. Others were shot decapitated by General Crook.


27. Tadorna platypterus. Gadwall. Shot one, and saw a brood of young. The one that was young and about the size of a hen. He could half shift more, but struggled them too small to kill. The one shot was hit in the back of the head, just as the General’s Squads are always shot.

References of Mammals Shot and Recovered:


No. 158. Sciurus aberti. Aberti’s Pika Squirrel. A fine one.

No. 159. Viscus aberti. Aberti’s Pine Squirrel.


October 5th.

Orange-yellow, with a broad terminal band of black. Bean plant around us, red; Fasai and red-striped coloration black. Crop contained corn which broke through the skin when struck and ground or falling. This creek is excellent for hiding a pleasant spot. Section 3301.

*No. 3371. Precipitous Columbia River. Head, Revelstoke 320; 350; 197; 128; Columbia 13, 24; 45; Tassels 36; middle trees 32; along 18. Given Brown, Bill, leg, feet and claws, black. Liver filled with seeds of vine.


*No. 3373. Pivoines montananus. Red mountain blacked off 14: 25: 30; bills from north, 14: 25; claws, 14; middle tree and claw, 23; along 9. Red, leg, and claws, black. Liver filled with seeds of vine.

*No. 3374. Bulle 200-300. Western Red-tail 85; 130; 420; 260; middle tree and claw, 23; along 9. Red, leg, and claws, black. Liver filled with seeds of vine.


October 6th, 1884. We left camp at Lake Banks at daybreak, and traveled to fork of section trees 320 miles (Lake Banks called 16 miles and half), Russell 23, which latter, my Stewart showed me in making out my official report. We passed through was thickly wooded with pine and a few trees, with no other species. We passed a number of long, grayish, shaded streams which contained a little standing water. Their margins are grown with aspen, whose leaves were changed to bright golden yellow. We then mostly joined the Reed Eddy. Piano.

October 7th. A curious halt, a small hill having a perfect line of trees, which travel has seen before, and could not imagine on account of the foggy, rainy situation, into which my horses refused to go.

Mammals. The only species seen were.

1. Rumpless talphoidestris cinnamomea. Southern Rocked Wolf, black and white, head of night.

2. The Indians who met us had killed several of these interesting new. A coarse black train to our camp not at the head of the gorge. A town creek where we found the winding river, winding with the larger of the stream. One of the lines was well covered, instead of being gray, like the rest of the deer seen on the lake may have been the Cordova deep. Uncommonly large, nearly as large as the skin of an old dog killed by the Indians. This is called one Colorado specimen.

Birds. The following were observed present.


9. Flock was near the foot of the creek that was near the many, others close. Black.called.

10. Cassin's Saxicola albiglutis. Western Savannah Sparrow. One seen near Camp on a little marsh (Savannah, where its name is often written Savannah Sparrow). Ordered by us and surrounded by iron trees.


12. Red-backed Snowjewel.


15. Hydronetta cates montana. Maximilian's Nests. 15 feet. A herd blocks were seen along the train, nodding on the other side. A few yellows above (Hydronetta brachyptera).


October 6th.
17. Pigeon, variegated, variegated. Harries Woodpecker.
18. A usual and shot at it was striking about among
the terminal branches of the pine, much as Harries
Woodpecker do. They however may not be characteristic,
I have never seen the first alive before to day.

October 7th, 1884. Left camp at dawn, and
marched to a fork of Canon Creek between, Lemon Creek
and Baboon Creek, fifteen (15) miles. To-day the order
of March changed. It was no longer "go-back-was-gone"
for the trail was difficult and at one point had to keep
the Indian guides in sight. After crossing a hill of
rolling country will find a wide and oak-reeled
to the edge of Font Basin. Here there was
and Indian trail down which we cut our horses
and we were fairly in Font Basin after a hard
scramble down the steep rocky slope. It was a long
hike! Then we rode through a beautiful country.
loving with green grass and a scattered growth of
trees. Until we came to Lemon Creek, a fine large
stream containing a number of fish, strange and
haunted by Nightshades (Cercopithecus), which were
here first seen on the trip. A Mormon settler had
built a house and owned a lot of stock beside
the stream where we struck it. Some cards and
counters (Blackbirds) among the drovers of Steward's
pigeons (blue) were at the head of a fork of the stream
before the came up and started our horses. As no
further halt was made, I was unable to preserve any
of the fish to a later time. We rode along the
stream for a few miles and then turned to the left
and crossed some high ridges and then to the
right until we reached camp on the "left fork"
of Lemon Creek. Lemon Creek passes into a box
within a right of the place where we left it. It is a
very beautiful stream and region.

Mammals.
20. Ground squirrel. Mr. Uncle Feeo. The Indian
guides found it at one of the head of the columns
in the camp.
22. Vison, or Badger. Southern Rock Squirrel,
25. March to Camp 2 The following named were seen
California Squirrel. California Black.
October 7th.

Dawn, 7, where the geese were found in abundance.
2. Corncrake binocula, American Kestrel, Arctic Campb. 
3. Cynocephalus xanacolbo, Western Meadowlark.
5. Corncrake, binocula, American Kestrel, Arctic Campb.
6. Cynocephalus xanacolbo, Western Meadowlark.
7. Cynocephalus, binocula, American Kestrel, Arctic Campb.
8. Cynocephalus, binocula, American Kestrel, Arctic Campb.
10. Cynocephalus, binocula, American Kestrel, Arctic Campb.
11. Cynocephalus, binocula, American Kestrel, Arctic Campb.
12. Cynocephalus, binocula, American Kestrel, Arctic Campb.
15. Euphania, binocula, American Kestrel, Arctic Campb.
17. Euphania, binocula, American Kestrel, Arctic Campb.
18. Euphania, binocula, American Kestrel, Arctic Campb.
20. Euphania, binocula, American Kestrel, Arctic Campb.
22. Euphania, binocula, American Kestrel, Arctic Campb.
23. Euphania, binocula, American Kestrel, Arctic Campb.
25. Euphania, binocula, American Kestrel, Arctic Campb.

never seen this day, and was unable to find them this afternoon, but the Simon family will see plenty of them during the next few days.

1. Euphania, binocula, American Kestrel, Arctic Campb.
2. Euphania, binocula, American Kestrel, Arctic Campb.
3. Euphania, binocula, American Kestrel, Arctic Campb.
4. Euphania, binocula, American Kestrel, Arctic Campb.
5. Euphania, binocula, American Kestrel, Arctic Campb.
7. Euphania, binocula, American Kestrel, Arctic Campb.
8. Euphania, binocula, American Kestrel, Arctic Campb.
10. Euphania, binocula, American Kestrel, Arctic Campb.
11. Euphania, binocula, American Kestrel, Arctic Campb.
12. Euphania, binocula, American Kestrel, Arctic Campb.
15. Euphania, binocula, American Kestrel, Arctic Campb.
17. Euphania, binocula, American Kestrel, Arctic Campb.
18. Euphania, binocula, American Kestrel, Arctic Campb.
20. Euphania, binocula, American Kestrel, Arctic Campb.
22. Euphania, binocula, American Kestrel, Arctic Campb.
23. Euphania, binocula, American Kestrel, Arctic Campb.
25. Euphania, binocula, American Kestrel, Arctic Campb.
October 7th.

Some specimens have still more pointed leaves. The size of the leaf varies considerably of same following a third outline to exhibit still further the variations in size as well as form of the leaf of this oak.

There are a few Douglas's Spurce (Pseudotsuga) here in the vicinity of Cachal. None were seen on the trail. A new grape, probably only a local variety (Vitis). grapes here. The vine is small, prostrate, with small leaves, and large (one bunch of) grapes, having a disagreeable flavor, perhaps because not quite ripe? A pretty purple flower (Begonia) grows here, and a bright purple Cormsbill (Veronica) and some green lemons that are handsome.

The Golden-rod (Solidago) are very fine.

The following species were collected—

140. Symplana adusta. - Hart's-Bend Squirrel. 4 ad. on Lisbon creek, Tonto Basin, A. F. Total length, 11/2; head and body, 5 1/2. From tip of nose to end of metacarpal, 4 1/2; ear, 2 1/2; tail, 6 1/2. Tail to end of vertebrae, 2 1/2. Hair, 2 1/2. Length of manus, 4 1/2; of tarsus, 6 1/2. Foot to ear-drop, 4 1/2. Hind leg, 4 1/2. Metatarsal joint, 6 1/2. Height of ear from crown, 2 1/2. Height of cheek, 3 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2. Ears, 2 1/2.

Birds:

The trail excellent, while our horses were in good condition for travel. The salubrious, pleasant temperature and beautiful sunlight in the open forest were agreeable enough to make the ride enjoyable. At length we descended somewhat and began to see a few grass and rough-barked shrubbery, and at length a cow-pen, all of which increased our numbers, till the large trees were gradually left behind. When we came upon the brow of a hill where the wise and Spanish cypresses and different species of cacti and shrubs occupied the soil, and the creeks were winding, irregular, and rocky. An endless number and variety of vegetation was encountered. We crossed a shallow stream, by force a tributary of the Ebinghew, which contained live streamers and garder frogs (Rana), for general miles, the trail lay over the hills, until we came to the Indian settlement on the heights above the valley of Ebinghew, which comprised a forest of the fertile valley, in the vicinity of the village cultivated extensively. The stream also bordered with beautiful fields of corn and sunflowers. The women were planting tobacco and the easiest trail and their voices were extremely musical and pleasant. Some of the girls were quite handsome, the older women aged and sickly. The Indians begged General Crook to be allowed to come here and live on the reservation, which they were allowed to do conditionally if they could be self-supporting. They are doing nicely, and appear to be very contented and happy, as they are all employed themselves in their pen with the General. Ebinghew Creek contains the "Pony-tail" and several other species of small fish, and the garder frog (Rana), which we find at Fort Verdi in abundance. I caught some specimens of fish and a Horned Toad (Ambystoma tigrinum), Breese, Blackberry, Kingfisher, and many small birds that are found at Verdi were seen along the Creek; but I failed to add more birds that could be preserved, and so collected as many as possible. The stream contained some deep
October 8th.

We arrived where we expected a bath and then walked to the General's tent to listen to the "dinner on the menu." Micky was the interpreter. He was about six feet tall and had a voice that filled the Al加強, with the order touffy having been captured by them as a child.

We killed the following list was seen:-
1. Merula migratoria, propinquia. Western Robin. Not common along the march in small groups.
5. Ephiphrus pyrrhopterus. Plain Titmouse. Seen. Not sure when we got through the poorest near our camp.
6. Heterocercus. Ammospotus. Sedge Warbler. A few were seen at Camp 7, gradually growing abundant as we ascended during the day while Beneo dolastri grasse as we went out of the pine forest.
8. Zonotrichia capensis. A few were seen at our last camp on a fork of Cache Creek.
9. Philo maculatus. Song-sparted Sparrow. A few were seen near our last camp (Camp 7).
11. Leucon punctatus. Common Starling. A few scattered individuals were seen along the way, and a large flock was found in the Indian cornfields on Cache Creek.
12. Gymnopithys gymnops. Maximiliani's Nutcracker. Colored Eagle. A few were seen of Nutcrackers were seen in the pine forest. Not seen. They fly low with short flapping wings, constantly alighting upon the ground, the seed was constantly dropped to the ground, and so slowly coming from back to place. When they met a hawk they attack poor Betico, and carry a fightful dir.
14. Long-billed petersi passerina. Maximiliani's Nutcracker. Colored Eagle. A few were seen of Nutcrackers were seen in the pine forest. Not seen. They fly low with short flapping wings, constantly alighting upon the ground, the seed was constantly dropped to the ground, and so slowly coming from back to place. When they meet a hawk they attack poor Betico, and carry a fightful dir.
15. Long-billed petersi passerina. Maximiliani's Nutcracker. Colored Eagle. A few were seen of Nutcrackers were seen in the pine forest. Not seen. They fly low with short flapping wings, constantly alighting upon the ground, the seed was constantly dropped to the ground, and so slowly coming from back to place. When they meet a hawk they attack poor Betico, and carry a fightful dir.

October 8th.

19. Akeleosea woodhousei. Woodhouse's Jay. One or two were seen at Camp 7, and their number increased all the way to the cabin.
20. Akeleosea corvida arizonae. Arizona Jay. As noted yesterday at Camp 7, three and more were about our camp. They were on the left fork of Calaveras creek (Camp 7). Why did not find them last evening. This morning remained at Camp until after the men all departed and hunted the various birds and thoroughly in hopes of finding either the Mexican Whistling Duck or Arizona Jay. The result was gratifying. Our day in the woods of about half a dozen, which we followed their activities, and note is the most curious thing about this day. It is totally unlike that of any other Arizona Jay. Their plumage is an eminently "Pee-wee" but while its other parts are modifications of the same native color but, and one or two more play such a part as they do in the Whistling Duck. They associate with the other jays and Woodhouse's Jay. One or two flocks were seen during the day between Camps 7 and 8.
21. Cearta leucopus. Belted Kingfisher. A pair on the river bank, which small fishes were abundant, and skatting with inaudible sound.
24. Azeleus toquados. Lewis's Woodpecker. Very abundant all along the range, and they delight to be constantly found flying, and their flights are quite peculiar.
25. Hypseleoma pantherina monachus. Red-shafted Flicker. A beautiful species was common at Camp 7 and above all along the way to the cabin.

The following named species of Mammals were seen:-
1. Ursus arctos. Bears - Male, Female...
Carrovo Creek lies in a deep valley, to reach which we descended a long steep hill, over a fairly good trail. The hills were covered with handsome willow trees and rough-barbed pine trees and cedars. The Indian Village was situated on the margin of the stream. Some of the young men engaged in a game played with rocks similar to frisbee and frisbee. The fire kept some of the men engaged in a song, a sound like clappingPosition, and heard his statement to the effect that it had been alleged that he had broken the carry-up trail and, knowing that they would kill him. So we shot two and gave them to the soldiers on condition that they would return the skulls. I only measured one of them, however (No. 31, 1853). 1. Vimoschis, donkeys?—Chipmunks—Several were seen in rocky canyons. They were probably variety of wore, the Life Cutomark. 2. Pteropsephus (glossary). Rock Mountain Lark-tailed Squirrel. Several were seen in rocky canyons. 4. Lormonyx. tail rides umbrella. Northern Black-Earedaxer. Several observed. — 1. Trunqisera maniculata and audorundic. Rocky Mountain Redback Thrush. One seen half-way between the creek. 2. Oreoper montanus. Sage Thrasher. A farseen, unknown shot. 3. Sphecanas mantiscus. California Viscidfish. 4. Regulus cataracta. Ruby-crowned Kinglet. 5. Thamnophis variolosus. Poway tree. 6. Pacific Caranidae. 7. Maculididae. Thomas, Powell, and others. Several were seen in a little cove, they had a very clean, empty coat and were singing equivocally. The gnat was small and some nests on the side of the road. I am not sure what kind of bird they were.
October 9th.

9. Pomona ludoviciana. Western Sanger. One was shot, unable to get on the trip.
11. Pigeon.
16. Aphelocoma virginiana. Common Grouse. Flocks were seen in the forest, on the bank of the river, and on the hillside.
17. Lophotyphantes annularis. Disneyland Finch. One female was seen beside a little stream.
18. Dendroica cerulea. Cyanogenys flavipes. Blackbird. Large flocks were seen at our camp at Lebec, and at a ranch near by.
19. Lophothlypis cyanogenys. Mangoche. Nodder. Large flocks, some containing hundreds of individuals, were seen all along the road.
28. Pica arctica calynus. Western Red-tailed Falcon. Several were seen.
29. Falco columbianus. Pigeon Hawk. One was seen to strike a fencer. I was riding within a rod of the fencer, when he dashed it from the branch, but could not hold fast to it, and the fencer Woodpecker flew screaming into the brushwood, with the hunter in hot pursuit.
30. Columba fasciata. Band-tailed Pigeon. In flocks numbering from 25 to 100. More abundant than hitherto. In the canyons they were single or in pairs, or threes. In the canyons and potato fields, however, (yesterday), a few flocks of 5 or 10 were seen. No day they were in large flocks. The timber along the brook was filled with pears, fenders, and a few juniper and fir trees, together with an abundant oak-tule and cypress, which are noted only in 23 and live oak.
31. Lophortyx gambelli. Gambel’s Quail. One flock was seen to bring between camps 8 and 9, Captain Roberts shot one. These were the first seen since we left Kern Creek, October 2, but the eagles and hawks took them some time before we reached Kern Creek.
32. Torquilla alexandri. Black-chinned Hummingbird. General Brown saw a female, the only humming bird seen on the entire expedition.
33. Melospiza fasciata. A number were found along Kern River. Looking for Food. Collected:
No. 3393. Aphelocoma sordida arizona. Arizona Jay. 5. Between Lebec Creek and Kern River, 10. 3394; 510; 172; 155; Celmen, 50; 87; 36; 71; middle 75; and 36; 36; 11, 9.
No. 3394. Pomona ludoviciana. Western Sanger. 2. Between Lebec Creek and Kern River, 8. 15; 296; 19; 172; 155; Celmen, 15; postcard, 11; 99; 118; and 17; middle 75; middle 5; and 17; 41; at least, 5; 39. 3395. Agelaius longirostris. Longirostris. Long-tailed Flicker. Between Lebec Creek and Kern River, 8. 27; 52; 16; 104; Celmen, 54; 87; 34; 71; 16; 28;
October 10th, 1844.

In the morn. inside the barrack (the same sepia card) were a number of these birds.
15. *Astrapalinae paludii*. From Jackson Dickson, large flock by the creek bottom at Caminio, feeding among seed of sunflowers; also seen occasionally along the route.
19. Selasphorus cyanoecephalus. Common. Black. The flock was still at Caminio. Saw a flock shot at
22. *Aphelocoma woodhouseii*. Woodhouse's Jay. Common until we got on higher ground, out of the shallows and into the juniper. Met with an accident when trying to get one of these jay. Which shot, fell into our camp. I walked up to the edge of it to look down, when a large rock rolled with me, and I went to the bottom. A stone stuck me on the head and another on the shoulder, but I received no permanent injury, although I was very sore and stiff.
23. *Aphelocoma condita arizonae*. Arizona Jay. Several were seen before we left the Colorado.
25. *Melanerpes formicivorus*. California Wood-
26. *Ergastura fortis*. May's Woodpecker. F. Very common all along the route, and their notes, which being in flocks, were like the 2 Spangled.
30. *Louise aucaurata*. Helled Kingfisher. Several
were working on the dam.
October 11th.

31. Saved one. From Pease. One was shot on the meadows above Borden's. As I was picking it up it flew, and circled about for several minutes, rising higher and higher until it finally disappeared into the distance.

32. Neither Carolinae. Horn-billed Stork. One seen of Savage Creek.

No mammals were seen.

Specimens of Birds Collected:

No. 3341. Asimia humata. Freckled Nuthatch, A. T. 77; 620; 165; 112;

No. 3347. Asimia humata. Freckled Nuthatch, A. T. 77; 35; 26; 21; 10;

All blank to p. 310.
A Catalogue of Medicinal Plants

Growing Wild in the Hudson Highlands, N.Y.

By Edgar A. Vearnor, M.E.

[Assistant Surgeon U.S. N.G.]

[Survey, 1844]

Note: The numbers in parenthesis following the name refers to the page on the list of Flora of the United States, published in 1833, where the plant and its medicinal virtues are treated of.

1. Chamomile, Virginia, L. comm. Virginis-Bruce (p. 166.)
2. Inulepectus, L. Agaphyllum; Wood Anemone (p. 115.)
4. Ranunculus bulbosus, L. Bulbous Crowfoot; Buttercup (p. 172.)
5. Ranunculus acris, L. Bell-wort; Buttercup (p. 172.)
6. Cerastium racemosum, L. Black Snake-root; Buttercup (p. 172.)
7. Uviolabenvena, L. Mulch; Mulch (p. 172.)
8. Veronica spicata, L. Canadian Moooseed (p. 172.)
9. Camelophyllum thalictroides, Michx. Blue Cohosh; Pasque-root (p. 172.)
10. Camelophyllum pratense, L. May-apple; Mandrake (p. 172.)
11. Lysimachia pulchella, L. Kentucky Blue Flower; Ketj; Ketj (p. 172.)
12. Sarracina pusilla, L. Wild-saddle Flower; Pitcher-Plant; Hunt's-man's lips (p. 172.)
13. Sanguinaria canadensis, L. Blood-root (p. 126.)
14. Campanula persicifolia, L. Cuckoo Flower; Cuckoo Flower (p. 157.)
15. Symphytum officinale, Bois. Hedge nettle; Nettle (p. 172.)
16. Viola cucullata, L. Common Blue Violet; Dryas (p. 172.)
17. Viola arora, L. Sweet or English Violet; Dryas (p. 172.)
18. Viola tricolor, L. Paney; Heart's-ease; Heart's-ease (p. 123.)
19. Valerianella canadensis, Michx. Rock-rose; Rock-rose (p. 172.)
20. Doriaea rotundifolia, L. Round-leaved Sundew; Sundew (p. 126.)
21. Hypericum perforatum, L. Common St. John's-wort; True St. John's-wort (p. 126.)
22. Stellaria officinalis, L. Common Soapwort; Soapwort (p. 126.)
23. Thalictrum aquilegia, L. Common Marsh-Mallow; Water Mallow (p. 165.)
24. Thalictrum aquilegia, L. Common Mallow; Water Mallow (p. 165.)
25. Thalictrum aquilegia, L. Water Mallow; Water Mallow (p. 165.)
26. Thalictrum aquilegia, L. Water Mallow; Water Mallow (p. 165.)
27. Comratia lutea, L. Yellow-root; Yellow-root (p. 126.)
28. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
29. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
30. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
31. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
32. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
33. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
34. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
35. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
36. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
37. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
38. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
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40. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
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53. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
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55. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
56. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
57. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
58. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
59. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
60. Aralia racemosa, L. Spikenard; Spikenard (p. 126.)
122. Carvya arborea, Nutt. Shell-rack or Fagge-bark Hickory. (J. 1859).
123. Carvya tenuifolia, Nutt. Thicket or White-heart Hickory. (J. 1859).
125. Quercus alba, L. White Oak. (J. 1859).
126. Quercus prinus, L. Chestnut-Oak. (J. 1859).
127. Carvya occidentalis, var. bistorta; Thurillo, Willow-barked or Black Oak. (J. 1859).
130. Fraxinus americana aspleniifolia, Nutt. Sedge-fern. (J. 1859).
131. Betula Lentae, L. Chinc Burle; Sweet or Black Birch. (J. 1857).
133. Fraxinus ornus, L. Sweet Ash. (J. 1858).
144. Symphyotrichum tortuosum, Salis. Shank Cabbage. (J. 1857).
145. Heuchera Californica, L. Sweet Flag; Calamis. (J. 1857).
151. Epipactis aurea, Nutt. Strawless Lady's-Slipper or Thosemite-flower. (J. 1857).

156. Medicago virginica, L. Indian Clovers. (J. 1857).
162. Adiantum pedatum, L. Maiden hair. (J. 1857).
165. Asplenium flexu-losa, Nutt. OUR. (J. 1857).

Memorandum of Society Memberships:

Elected a Corresponding Member of the Nuttall Ornithological Club, February 40, 1878.
Elected Corresponding Member of Linnaean Society of New York, on March 16, 1878. Elected an Active Member.

Became a member and "founder" of the American Ornithologists' Union on September 26, 1878.
Elected a Member of the Ottawa (Canada) Field Naturalists Club, December 9, 1889.
Papilia jaunus, Rbh. is the common yellow-and-black butterfly of Fort Verde, Arizona.
Lepus calotis
Lepus texianus 5, 7, 9, 28, 30, 33.
Erithizon dorsatus epixanthus
Castor fiber canadensis
Dipodomys phillipsi ordi
Thomomys talpoides umbrinus 5, 7, 12, 16, 21, 23, 31, 33.
Sciurus hudsonius fremonti 13, 18, 14, 16, 19
Sciurus aberti 8, 10, 12, 14, 15 (measurement of 12, 183), 16, 19, 26, 31, 32.
Sciurus arizonensis
Tamias asiaticus quadrivattus 10, 11, 12, 14, 15, measurement of 13, 183, 23, 33.
Tamias dorsalis 5, 23, 33.
Tamias harrisi 3.
Tamias lateralis
Spermophilus gramanus 24, 31, 33.
Spermophilus tereticaudus
Cynomys columbianus
Mus degummanus
Mus musculus
Diotyles torquatus
Cervus canadensis 9.
Cariacus leucurus crooki et mexicanus 21.
Cariacus macrotis montana 5, 8, 11, 12, 16, 21, 23, 28, 32.
Antilocapra americana 5.
Ovis montana
Canis familiaris (Indian Dog)
Long-eared Bat
Large Brown Bat
Little Brown Bat
Red Bat, and all other spp.
Sorex
Moles (all spp.)
Felis concolor
Lynx rufus maculatus
Lynx canadensis (or other species than the above)
Bassaris astuta
Canis lupus occidentalis
Canis latrans /2, 15, 21/
Vulpes velox
Urocyon cinero-argentatus
Gulo luscus
Putorius braziliensis frenatus
Mephitis mephitis
Mephitis interrupta
Conopatus mapurito
Taxidea americana berlandieri
Lutra canadensis
Procyon hernandezii
Ursus horibilis
Ursus americanus /2, /2,
Neotoma mexicana
Hesperomys leucopus sonoriensis
Hesperomys leucopus eremicus
Hesperomys leucogaster torridus
Arvicola ?
Sigmodon hispidus arizonae
Fiber zibethicus
Lepus sylvaticus nuttalli
Lepus sylvaticus arizonae /3,
Capulio clavus, Rb. is the common yellow-and-black butterfly of Fort Verde, Arizona.