March, May
1885
GENERAL ORDERS, No. 202
HEADQUARTERS OF THE ARMY,
AMERICAN GENERAL OFFICE,
Washington, February 7, 1865.

L. The 3rd Regiment of Cavalry (except the troop stationed at Fort Leavenworth, Kansas) and the 8th Regiment of Cavalry will exchange stations, the movement to commence not later than April 1, 1865. The exchange will be made by marching.

H. The commanding generals of the Pacific and the Missouri will assign the respective regiments coming to their commands to stations as soon as practicable after the receipt of this order.

I. The columns during the movement will be provided with necessary supplies at convenient stations on the contiguous railroads.

IV. As far as practicable, all regimental, troop, and the authorized allowance of officers' baggage will be shipped by rail from initial points to the new stations of the different detachments of each regiment.

V. Further details will be arranged by the commanding generals of the Missouri and the Pacific, due regard being paid to economy by synchronizing, as far as practicable, the simultaneous arrival of columns at such points as they may designate for the exchange of wagon transportation.

By command of Lieutenant General, Secretary:
R. G. BUSH.
Assistant Adjutant General.
HEADQUARTERS DEPARTMENT OF ARIZONA,
Whipple Barracks, Prescott, March 11, 1885.

SPECIAL ORDERS No. 25.

(Extract.)

1. In compliance with Division General Orders No. 4, current series, the 3d Cavalry, except as therein prescribed, will march to Bowie Station, A. T., leaving their present stations in time to reach that point not later than the 13th proximo, and thence to Deming, N. M., as directed by said order. The troops at Forts Apache, San Carlos, Thomas and Grant will unite, in the order of posts named.

Regimental, troop and officers' baggage will be shipped as directed in paragraph 4, General Orders No. 11, current series, Headquarters of the Army. Supplies will be furnished from this Department to Deming, and for the 10th Cavalry, from that point to stations as assigned.

The Chiefs of the Quartermaster's and Subsistence Departments will provide necessary supplies for the troops at convenient points contiguous to the line of march between the posts in this Department and Deming, N. M. Posts will supply transportation as follows, to be assigned to service by the Chief Quartermaster:

- Whipple Depot: 4 six-mule teams - 1 ambulance.
- Fort Verde: 1 six-mule team.
- Fort Apache: 2 six-mule teams - 1 ambulance.
- Fort Thomas: 4 six-mule teams - 1 ambulance.
- San Carlos: 1 six-mule team.
- Fort Grant: 7 six-mule teams - 1 ambulance.
- Fort Bowie: 2 six-mule teams.
- Fort Huachuca: 3 six-mule teams.

2. Captain C. H. Williams, assistant quartermaster, will proceed to Bowie Station, prior to the arrival there of the 3d Cavalry, and thence to Deming, N. M., for the purpose, under instructions of the Chief Quartermaster and Commissary, of superintending the transportation and supply of the troops from and to their posts. Upon completion of these duties Captain Williams will return to his station.

The journeys as directed are necessary for the public service.
3. The Quartermaster's Department will furnish the necessary wagon and rail transportation, via Ash Fork to Fort Davis, Texas, to the Colonel, Adjutant, non-commissioned staff and band of the 3d Cavalry.

4. Assistant Surgeon E. A. Mearns, U. S. Army, will report to Lieutenant Colonel D. H. Hurd, 3d Cavalry, in command of the regiment as medical officer in charge, and will return with the 10th Cavalry, to his station—Fort Verde.

Acting Assistant Surgeon E. E. Andrews, U. S. Army, will report to the Commanding Officer Fort Thomas, to accompany the troops from Fort Apache, Thomas and Grant to Bowie Station, thence with the regiment to Deming and return with the troops of the 10th Cavalry assigned to Fort Grant, Fort Huerfano and Apache, from which post until called he will report to his station—Fort Huachuca.

The journey of Acting Assistant Surgeon Andrews as directed are necessary for the public service.

Acting Assistant Surgeon S. F. Wharton, U. S. Army, will accompany Troop A, 3d Cavalry, upon its departure from Fort Apache to Fort Thomas, reporting upon arrival to the commanding officer for temporary duty at that post.

The Quartermaster's Department will furnish the necessary transportation.

5. Private C. W. Judson, Troop C, 3d Cavalry (hospital steward of the 3d class), on being relieved at Fort Lowell, will proceed to Fort Thomas and report to the commanding officer for duty in the same capacity with troops of his regiment under orders to proceed to Texas.

Private Peter Werner, Company E, 1st Infantry (hospital steward of the 3d class), will accompany the 3d Cavalry in that capacity to Deming, N. M., and return with the 9th Cavalry to his station—Whipple Barracks.

The Quartermaster's Department will furnish the necessary transportation.

* * *

By order oflieutenant General Crook:

Wm. R. St. Clair
Assistant Adjutant General.

A Journal of a Journey from Fort Verde, By Deming, New Mexico, Arizona, and Returning, Performed on Horseback. Distance about 972 miles, Leaving Fort Verde on March 25th, 1885, and returning May 20th, 1885.

By Edgar A. Mearns,

Acting Asst. Surgeon, U. S. A.

Medical Officer in Charge of the 3rd and 10th Regiments of U. S. Cavalry Exchanging Stations Between the Departments of Arizona and New Mexico.
Contents.

Pages 1 to 15  A Catalogue and Description of the Birds.
Pages 16 to 17  "  "  "  "  "  "  Mammals.
Pages 18 to 21  "  "  "  "  "  "  "  Reptiles.
Page 21  Note on Leptus Hemmingbird.
Pages 22 to 43  A Catalogue and Description of the Eggs & Eggs taken.
Pages 44 to 137 Narrative and Summary of the Expedition.
Pages 138 to 140 Notes of the Collections made and a Preliminary Report upon Mammals and Birds made to the Surgeon General, U.S. Army.

Pages
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Notes</th>
</tr>
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### Notes

- Shot on the leg of a \(...\)
- Young with parents...
- A noted finch... during... top of...
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<td>May 10</td>
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- Faded ink and handwriting make some entries unclear.
- The page appears to be part of a logbook or journal entry.
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<th>Date</th>
<th>St. No.</th>
<th>Name</th>
<th>Age</th>
<th>Sex</th>
<th>Parent St. No.</th>
<th>Parent Name</th>
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<td>4012</td>
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<td>John Doe</td>
<td>25</td>
<td>M</td>
<td>4010</td>
<td>Smith</td>
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<td>4013</td>
<td>3</td>
<td>Jane Doe</td>
<td>30</td>
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<td>4012</td>
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<th>Scots</th>
<th>Cur</th>
<th>PerCapita</th>
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**Note:**
- Family of met (and set B). Young of year still in the wild. Ready to go. Two of 6 year old go for 9 days from here. Met at Neash Station in May. Neash Station and 1892.
- Young with worms.
- Met with a little family. No meals, but small amounts.
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<th>Locality and Name</th>
<th>Remarks</th>
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<td>New York State...</td>
<td>...in New York State.</td>
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<tr>
<td>New York City</td>
<td>...in New York City.</td>
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### Table

<table>
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<th>Species</th>
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<tr>
<td>Homo sapiens</td>
<td>Human species</td>
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### Additional Information
- **Locality and Name**: Details about different localities and names related to the species mentioned.
- **Remarks**: Further notes on the species and its characteristics.
Measurements of "Great-crested" Eu. Shot between Brimble Beck and New Run, A.Y., March 27, 1886, 89: 116; 47; 27; 30; 17.5; gdp, 21.5; tss, 4.5; mud, 164; cl, 7; el, 3.
**Name:**

**Locality:**

**Date:** 1885

- Measurements:
  - Foot: 49 x 60
  - Width: 48 x 69
  - Length: 49 x 60

They are ground in a cabinet. No. 2 has distinct circular button eyes, but sparsely scattered distributed over the whole egg, indistinct and granular, interspersed with yellow spots and much smaller toward the smaller end.

Banding: Buff-colored, brown, and white, more golden, speckled. These eggs are slightly, purplish-brown, and contained rounded, oval shafts, considerably more pointed at one end. The eggs were partly filled, and each one was of a brown, grey, and greenish-brown, the shadows marking out overlaid by shell down a little.

**Note:** While hunting quails in a field, and resting in a tall cottonwood tree, I saw two quails dead near the nest. I succeeded in conveying them alive, much concealed on the road, and were several feet and a half-eaten leg broth did not approach, but was adjacent.}

**Locality:**

- Manzana, Arizona.

- Flora, color: Light greenish-gray, cloudy, and pale blue. Nest built of grass, made.

- Type plant: Manzana, Arizona.

- Stem: 16, 7-6 x 6, 8 x 6, 7-8 x 6, 7-8 x 6, 7-8 x 6.

- Buff-colored, strongly, banded all over, with a few dots of broad, round, and greenish-blue, the eggs measuring 58-60 feet.

- Mammal: 2-1/2 feet, 19 x 6-3/4. And six shoots, much smaller, spotted with small, circular, black areas of light yellowish-brown, and green, with a few dots of greenish-blue.

- Mammal: 3-1/2 feet, 17 x 6-5, 7-6 x 6, 8 x 6, 7-8 x 6, 7-8 x 6, 7-8 x 6.

- Buff-colored, indistinctly, banded all over, with a few dots of broad, round, and greenish-blue, the eggs measuring 58-60 feet.

- Mammal: 2-1/2 feet, 17 x 6-5, 7-6 x 6, 8 x 6, 7-8 x 6, 7-8 x 6, 7-8 x 6.

- Buff-colored, white, all over but slightly in a circle or two, with a few dots of broad, round, and greenish-blue, the eggs measuring 58-60 feet.
| Date | Remarks | Measurements/Note
<table>
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<tbody>
<tr>
<td>May 19</td>
<td>a, 17X 24.5; b, 17X 24; c, 17X 24.5; d, 17X 26.</td>
<td>salmon-color, speckled all over with dull red and purplish to the whole egg. Nest built in a &quot;cholla&quot; cactus.</td>
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</table>
Measurements and Remarks:

**Apr. 22, 1876**: Eggshells, oval, rather deep in color than those of C. argyrae, spotted, all hatched at the great end, where they tend to accumulate. The nest was built in a "cholla." The parents were not secured, nor seen in the nest.

**Apr. 22, 17 X 29**: Eggs, oblong, oval, rather deep in color than those of C. argyrae, spotted, all hatched at the great end, where they tend to accumulate. The nest was built in a "cholla." The parents were not secured, nor seen in the nest.

**April 24, 20 X 26, 20 X 37, 19 X 27, 21 X 26**: Eggs were ready to hatch. The nest was built in a "cholla." The parents were not secured, nor seen in the nest.

**April 24, 24 X 33**: This egg is pure white, unmarked. The parents were not secured, nor seen in the nest.

**April 26, 18 X 26**: These eggs are unusually large, spotted, all hatched and given a dozen, or similar color to the egg. The nest was not secured.

**April 26, 20 X 28**: Eggs were ready to hatch. The nest was built in a "cholla." The parents were not secured, nor seen in the nest.

**April 27, 21 X 25, 21 X 29**: Eggs were ready to hatch. The nest was built in a "cholla." The parents were not secured, nor seen in the nest.
Measurements and Remarks.

C. 175 x 34; L 11.5 x 24.5; 6; 17.5 x 28; 6; 17 x 24.5; 6; 19 x 27.

...described above. Nest built in a forest grove 10 feet high.

C. 16.5 x 34; L 16.23. Contained small embryos.

...found near this. The next nest built in a...are like those taken at Fort Clark, Arizona, rather pointed at the smaller end. Ground color...on the outer shell.

C. 15, 24.5 x 38; L 24.4 x 32; L 24.5...happening to the small end. The ground color, streaked, shaded, shaded all over...some of the spots opalescent because overlain Shell covering them. The female was on the pea of a small bush in the back yard, clucking and cooing to where a...Colubrida melanura.

San Luis, Arizona.

...streaked, mottled, ovalish shape, have...attached brown spots, giving to form a contrast against the chiefly brown, near...external breadth, 70. Internal breadth, 35. Length of isthmus, 25; and pledges of eye...little contracted at the base. Built in the about 2 feet above the ground. The thumb in the...Pine Leap, New Mexico.

Blue, with a few spots and some spots of...Heliotraca melanura.

near Fortsum. Meas. 5 feet from the ground. Materials used...deciduous. Characteristically marked, chiefly...measured in feet: 6;; outside...S. 6; inside, length 38; breadth, 28.

C. 15 x 21. Nest built in a hollow, Ground color light...dark brownish brown at the greatest end.

...nest. Nest still unfinished. Built on the fork of a grasswood...clutches. But it looks like the hand, and decoders, and...the scales of some words. It is well and glossy...brown, and like the others gray in color. Outside...6.5; inside, length 38; breadth, 28.
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Locality</th>
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The nest was built on a small tree, about thirty feet from the ground. It was a cup-shaped structure, made of small twigs and grass, and contained a single egg. The egg was white, with a few dark spots. The nest was built near a small stream, and was well hidden in the bushes. It contained a single egg, which hatched a few days after the nest was built. The nest was well hidden, and was not noticed by any animals.
Name
Locality

Juneepey Californianum. Between Sanben and Wet-r. Ephr.
Egg: elliptical, oval; shell whitish, exterior coated with brownish-cream
Meas. 6.8 feet from the ground.

Mountains Spiny and:
Egg: oval; ground-color a dull brownish-white;
Plant of the plant with a few curly tendrils, and a few grassy:
2 feet above the ground. This egg was hatched on a large dry
a few dry tendrils, the root of the root of the plant to the
110 internal breadth, 110 internal
Froctus acuminatum. Mountain Spiny, Lagen.

7.8 feet above the ground, containing 5 minutes from the ground:
Ground color, white. Egg: oval; shell whitish, exterior coated with brownish-white.

Bull's Head, Oregon
The shell is brownish with brownish-brown
stripes and color. The egg in most cases:

Mountains Spiny and:
Ground color, yellow. Egg: oval; shell whitish, exterior coated with brownish-white.

Bull's Head, Oregon
The egg: oval; shell whitish, exterior coated with brownish-white.

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</table>

**Material and Color**

- **Graphite melanarius**
- **Red Rock, Arizona**
  - Ground-blue ground, flecked all over with reddish brown, mixed with grayish-brown and lavender shades. Small extant, in the marks near the great end. The nest was built in a mesquite, near a neighbor's branch. It holds about 7 eggs, mostly white, each about 1.5 inches.
Pepperidge: *Piperia abortiva*
Bile-wort, Leaf Pepermint

The nest was built in an eminence of ribbons of vines, bush of the cottonwood, yale blue, each egg marked at the back and dashes of black brown. Appearance: spot of pale lavender. A few of the nests built in the fork of a mesquite. One egg has a

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**Measurements and Remarks.**

May 16. Newt, finished just, built in fork of a mesquite, of bark covered by fine silky fabric, lined with 1/2 inch black and some white, some fine brown ovals. Internal depth, 4.6; external breadth, 37.2 mm. May 17, 1845.5 x 51.5. A single egg found when the nest was examined, brownish yellow eggs. A leaf from May 17, 43 x 35. Egg rounded oval, slightly smaller, more elongated, oval, filled with a few small cottonwood seeds. 25 feet above the ground. 

*Melobesia leucophaea* New River, Arizona. Smaller at one end. The nest was elongated, oval, filled with a few small seeds. Not much brown and dirty soil. The nest was built close under the leaves of the mesquite. Nectar in the form of a drop, very sweet and aromatic. The nest is covered of leaves with small roots and some small seeds, measuring in external 60; internal breadth 70. Locality a *Diptera* albanus. Aquatic marshland. Found at the shallows at about 45 cm in length with dark eyes. Some brown, creamy granular appearance.
It is evenly blotched with very pale large spots, and some confused of plume, bluish towards one edge. Their seems to be a large group of thousands in a tall cottonwood tree but when the upper, but not over, not return but disappeared after I visited several dozen did not return and was exactly like the first two green leaves of cottonwoodattached and contained the two eggs, which were found, but three eggs narrowly to the nest, while the nest and was black with white soil, first nest was absolute. The scrape was directed towards me and was shot before.

Melopelia lactea
Black Cannon and stubble.

The nest was built in a green-backed scissor or pole position. The female sat upon the nest until a few minutes, when she gave a little scream) mournfully, until she: Cardamine elongata

Greenish brown, black, and white of several times before she could be described carefully, near Antelope. Arrowroot at the small end. Front: color, bright yellow, cinnamon, brown, and a few with bright yellow, rusty, brown, and the nest was built on an olive with and strip of green, black, and black cottonwoods near the nest and was eaten.

Minimus fulgens

Ground: color, greenish, white, blended in a barberry 3 feet from the

Mellon-russ and lavender. The eggs contained their contents with great difficulty. I entered the woods and saw the nest. The woodpecker built his nest in the cottonwoods in the level butt. I searched for a long time for this nest which I finally to the place where I shot the old bird. The stable range before I could obtain a shot, and did not hear or see cotton a few times, and although and the nest was bleached with minute excretion: a cloud of black, lined only with a few to the twigs. The nest was rather concave, deeper in size, shape and markings from that one and doubt about the identification, for the nest other bird was distinctly seen when flying from the tree. On the other hand, the identification of the was seen upon the nest, the rose and often straight the nest was here, the nest was also broad to.

No.176 L 23 X 82; L 13 X 31. Over an Oak, obviously white, mangnolata, shining somewhat. The beak was curved slightly over the mouth in a conspicuous and did not leave until I attempted to catch him among the bushes and began to coo: (Coot-oo)

May 15th 7.5 X 24.5 16 18 X 85; 28 11 X 26. Ecliptic oval, greenish brown-white, flushed all over uniformly, white to be elongated longitudinally. 3 or 4 more conspicuous, purple patches (most numerous near the front end.

Mellon 16 ft from the ground: 3 of clumps grasses

The nest was blended from the squared. The male was so shy that I could not prove it.

May 18th 21 X 29; 21 X 29. Egg elongated oval, cylindrical white. Nest built on a shelf of rock on a cliff.

May 18th 26 X 53; 19 X 85; 19 X 24 5; 19 X 28. Ormond, all over with rusty, brown and purple. Nest built ground.
<table>
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<tr>
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<tbody>
<tr>
<td>1</td>
<td>19.5 x 27</td>
<td>Egg, elongated oval, green, and yellow-brown, the photo confluent on the shin of a young branch of a young tree, laid on the ground. It was a deep, well-nester. The nest was built of twigs and grass, with a nest lining.</td>
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<td>31 x 42; 31 x 42; 28 x 41</td>
<td>Shape elongated oval, ground color, and yellow-brown, the photo confluent on the shin of a young branch of a young tree, laid on the ground. It was a deep, well-nester. The nest was built of twigs and grass, with a nest lining.</td>
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<td>3</td>
<td>21 x 27; 21 x 28</td>
<td>Abdominal, but slight, and slightly lamb's ears, ground color, and yellow-brown, the photo confluent on the shin of a young branch of a young tree, laid on the ground. It was a deep, well-nester. The nest was built of twigs and grass, with a nest lining.</td>
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*In the above, note and egg contains 25 species, represented by name.*
Narrative of Itinerary of the Expedition.

March 25th 1885.

We left Fort Verde, Arizona, under a pouring rain, but it soon cleared off, and the air was pleasant. We marched to near the creek, upon which we encamped. The wagons were still, and did not reach camp until after dark, on account of muddy roads. The teams had to double up, and pull one wagon at a time. Captain Russell's privy buggy broke down and was tied on behind one of the company wagons.

Our party, at this time, consisted of Col. Alexander, and "Mr. Russell, Dr. Delendin and myself, with "K" (left end of the 3rd).

The doctor and I stalked at Hance's Ranch at the Bienequa and hunted for an hour. Along the creek is a thick growth of deadwood, and a number of young pines. Among these trees were a number of Lewis's Woodpeckers (Lepus). From which we shot several. While hunting, I found a female Red-tailed Hawk (Buteo), and shot a male, which was sitting on a trunk of a dead tree (Pine or fir?").

I climbed the tree, and took from the nest three eggs, nearly fresh, which I succeeded in carrying safely to camp.

A few of the cottonwoods along the Verde River were just beginning to show a few green leaves, but a number of stokes in looped branches, together with several others, were in leaf. The season is somewhat earlier this year than on the same day of last year, when we first arrived at Verde; for many plants which are now in bloom were just coming out of the ground last year.

Among the flowers seen were the Campion grown bunches of yellow violets (Viola markella).
About the nest, and when its edge, were several eggs of the eastern-tailed Rabbit (Sylvis expurgatorius arizonae). Large flocks of Maximilian's Nuthatchers (Acanthrosetta cynamophora) rested in the Cedars and a high ridge near our camp.

The valley, my eyes, shot a Northern Black-capped Robin (Pheucticus terrius) with his carmine. It was a female, and contained 8 fortunes.

March 26th.

While breakfast was cooking, I found time to rear my Hawk's eggs, the parent having been killed last night while nesting to the wagons to cook.

We left Wash Creek at 7:30 a.m., and marched 36 miles to Bumble Bee. Between Antelope and Bumble Bee were the last St. Vrain (Basset) gigantes.

We left Wash Creek when we bade camp, and followed a trail over higher ground. On the grassy slopes I shot a new bird, the Western Yellow-tailed Sparrow (Chondestes grammacus plumbeus), which ran from beneath our horses' feet and vainly attempted to hide in the too short grass by the trail, where it fluttered and shot into the wire strung by its resemblance not only in habits but in color pattern to some of the quails. This bird is quite like the Bell's Wairen (Duks); and a still more apt comparison might be made with the common Quail, the Old World (Coturnix), whereas the generic name although Dr. Le Conte says (Chondestes gramacus plumbeus) "without diminutive of quails, a quail; said to be so called from the resemblance of the sound of its voice to the sound of the wood." Only one of these birds was seen.

Several miles farther on we came to Wash Creek again and skirted it for a little way, finding a beautiful grove of Cottonwood in full foliage. Here I found a specimen of the diminutive Yellow-throated warbler.

We left, and found a number of Song Sparrows (Melospiza melodia) of the same peculiar characteristics as those found in the Ute Valley and Great Colorado River, which have not yet been described and are specifically named; therefore I continue to designate it as Melospiza pascua (what is it).

When we reached the Acoma floor we halted for a noon rest in a grove of cottonwoods of remarkably large size. We measured the largest with a tape line, four feet above the ground. It measures 34 feet in girth, and has one enormous or morbid growth at that part, the trunk being symmetrical and rather tall, although the branches are long and drooping, nearly reaching to the ground. At this place a group of Sharrow (Shlarow) fish (Limnoleuns sparsus) were collecting on the river. They were doubtless making their loud cries reminded one of those of the Oysterstills—still more of the Ibis Wood-pigeon.

A very rare North American bird, the Mexican Black Hawk (Buteo lagopus) was here seen, but could not be shot. I took the first North American specimens that have yet been secured north of Mexico, on the Rio Grande last season.

As we advanced, descending slowly, we found vegetation more and more advanced, but most of the flowers in bloom were and as occurs in late April a week weeks later. Among these were umbellata, calceolaria, composite, Indian mague, cypress, orange, yellow (yellow), spiny (white), and a drooping legume with compound leaves like a small smut. ("For the mass", Mr. Russell said they resembled), and some large and handsome legumes of the genus Asclepias.

Near Antelope we saw a " Company marching ahead of us, towards Bumble Bee, from Whipple."
We reached Bumble Bee just at sundown. Several birds were shot which unfortunately could not be skinned, I was too tired to get any longer than to obtain my new bird, and the Yellow-headed Jay. The mammals seen were Coyote, Rocky Mountain, Blue-tailed Squirrel, six prairie cattens, a few Gila Cliff-dweller Indians, Harris’s Antelope, Brandt’s Cormorant, and a White-tailed Deer shot by a handgrenade near Antelope. The birds and mammals seen each day are shown in the table and reports sent to the Surgeon General; but I will give some notice occurring in my field notebook from time to time.

Mountain Warblingbird – One shot, abundant; Singing.
Red-rumped Thrasher – A few seen, singing.
Furry-crowned Knight – Abundant on the Agua Fria.
Yellow-headed Jay – Many seen in six flocks on the plateau of mesquite etc., along Agua Fria.
White-tailed Swallow – One flock on the Agua Fria.
A few Rough-crested Swallows, white-mantled Shrike, House Finch, and Arizona Snowbuntings were seen.

The Western Meadow Lark, Western Bockfinch, and Black-hooded Bunting were singing.

A California Cordon Graptemys californiensis was seen feeding on a clear stone brook near Raros, but could not be approached with my rifle range, although the Raven were not shy.

A few Red-tailed Hawks (Buteo jamaicensis) were seen, some of them even having been Leopards (Chrysocyon brachyurus). Sandhill Cranes were everywhere common. The males call their deep croaks from the tops of bushes on all sides. We always felt the crows soundlessly supplied until their caws as the Doctor seemed eager to trick shooting at them.

March 27th.

Colonel Brackett arrived at Bumble Bee on horseback, and took command. His adjutant and Quarter Master (Fritz, Styer and Hablers) and Captain Wawle and Captain Rayner of the 2nd foot, and the new com. Staff and Com. were added to our party; until we left Maricopa, when the all proceeded to Bowie Station by rail except the Adjutant (Capt. Wawle and D. Hunt, Thrive) and troops of the 3rd Co. of the 9th foot marched with us, Commanded by Captain Russell all the way.

At 8 we sounded at 5 o’clock P.M. and we left Bumble Bee at 6:30, marching 25 miles to Hall’s Ranch on New River.

Colonel Brackett gave me permission to ride ahead of the column with Doctor Landeau. The road through Black Junction here much better than I anticipated, Verdel’s Hummingbird (Callipris californica) was found at the beginning of the curve and soon became very abundant, although flour were quite scarce. At the foot of Black Bridge we found the first Caloosa Rose (Centoria gigantea) and Atacaste (Vachellia farnesiana, Benth.)

When we reached the Agua Fria, near Saltillo, the Cape Saint Lucas Cardinals (Cardinalis xanthurus, Gray) and Vermilion Flycatcher (Myiarchus phoebe) and Yellow-billed Tds (Amparhis flaviceps) and Hummingbirds (Callipris californica) were very abundant. The foliage of the cottonwoods here and further on along New River near the junction with the Agua Fria, had assumed the dark rich tint of green characteristic of the fully developed leaf, and the trees were decked with the cotton, which hung in festoons from the drooping branches. I gathered a quantity of it at Hinton for stuffing and packing Washington. Harris’s Laburnum with its abundant
and young of both species of Rabbits (E.owntake and Barbary rabbit), or from small lizards.

An other Jacaranda was killed and filled, contained last two young. The first Cisco (Cisco, a small)

The seeds from the flowers of the Juncus are abundant.

When we left Idaho two days ago, only a few cottonwoods showed any signs of foliage; while those at this camp are in full foliage. The cotton is need for filling mattresses, and is soft and silky.

I can gather in large一把. The Cotton Top and New River are filled with many edible

dishes and leopards brooks. Only a few lizards have been seen, although most abundant today.

Quaint Gnat (Cinisus giganteus) are abundant all along the way, and the mountains on the east side.

The White-tailed Eagle (Haliaeetus leucocephalus, clothed in their normal plumage, with deciduous joints,

exceedingly addicted) was seen in Black Canyon. The Beech Worms live to build

their large nests in them, and we saw many of their nests in mesquites. Quail were abundant.

It is hard work while we are a least of the plants as they are nearly all Broad at Missouri. The first cactus, a handsom red "Cereus" was in flower. Eyeball, adivine and the composites, yucca

did yellow arnica and cypress were abundant.

Althoos, a few Rock Squirrels, Shrews,

White and gray, Aspens, Grove and man, Sisters, and White, the only ller species. Birds - The Cuckoo-headed Salt was very common, as were their nests. The note is a shrill metallic call.

The Rock Wren and Cactus Wren were both common I killed that at a

Belderslye's berryhaw. Rough-winged Swallows

were plentiful. They like to settle on dry limbs.

The Rough-crested Lark and Black-throated Sparrow were singing on.

The Bumble Bee. Bullock's Chaffinches were last seen
to-day, one mile on the Agua Fria and an other

miles on New River.

March 28th

Last night the Doctor and I slept without our blankets.

The wagon was upset and broken, and the articles

were not brought in until near morning. The

local ordered to rest in camp to day, as we expected

to find time to clean our hands up and resell our

trunks. We found some loose straw which we covered ourselves with blankets having been

appropriated by soldiers as the night was cold. We

both slept well all night. After changing his mind

several times and giving contradiction orders, the

Colonel ordered the "General" sounded at 7:30 a.m.

The men were taking bread which they had to

throw away. We left Hall's Ranch at 8 o'clock and

advanced 30 miles to the Grand branch near

Phoenix, where we arrived after dark, and found

that our Russell had met us once more fresh

vegetables and lettuce salad with blueberries for our

dinner. The day was intensely hot. Most of the

morning that were sheltered when we got to camp.
some made hair ridges, when we reached a level, desert plain covered with malapai rock. The plain lay covered with greenwood and cacti. The giant cactus and other species of cacti, behind cacti, and arborescent Opuntia as well as the few jointed species of the same genus. We soon captured specimens of a new Throsellia (Thresellia) of which we saw to-but specimens yesterday in Black Canyon. While crossing a dried pool of green water, I discovered a new Saguaro (Saguaro ferocactus), and shot five specim.

At Desert Hill, about the middle of the march, we found Harris’s chipmunk associated with the new Saguaro, and at locality one at the base of a mounded talus with malapai rock in which the chipmunks found a congenial home, quite different from the plain in which the Throsellia lived in abundance. The first specimens of the Black-capped thrasher-like were also found here.

The desert was bounded by mountains. The only abundant plant was the greenwood (Adenia tridentate) now in flower it added a gummy oleoresin whence its name. The flowers are yellow, stellate. A few cases of the greenwood became rare in flower - bright red.

Mammals:

Throsellia ferocactus David - Fort Yuma Throsellia. This singular mammal lived in holes under the greenwood, which it under mined, executing chambers and burrowing beneath the roots. Large, low mounds are formed around the base of the greenwood, having many holes for entrance and egress. In reason for their selection in excavating their burrows seems to be that the larvae forced on the time costs of the greenwood served to support the dome of their habitation, the soil being everywhere light and loose, would otherwise be continually caving in upon their chambers and galleries.

In size and proportions, this animal approaches the huckleberry chipmunk (Tamias), being of just about the size of a white mouse, with which it was found today; but it is quite different in appearance and habits, where alone, from Harris’s chipmunk. Its secretive, bluish, to a brown, at times, is often striking. When surprised away from its burrow it tries to stuck unnoticed to its hole, and makes low, with its head elevated and pricked Apart like a right angle to the plane of the neck. That shot had been eating the seeds of a helpful weed, bearing yellow flowers. Their huge stomas were extended forth from the mouth as far as they had the appearance of being about two years young. They utter a loud, plaintive note when disturbed or when their burrows. Our kept finding its head in and out of the hole, giving the plaintive cry at each disappearance. This species must be infinitely abundant in the region which inhabited for they live in enormous colonies. In many areas, green grasswood brush, find their burrows beneath it. In habit, it is shy. At a distance they may often seen gathering in great like Pronghorns (Cynomys) at the entrance to their burrow. As soon as they sense they usually dived into one of several holtes usually found into the bush - always a greenwood, for that was the only shrub found growing over most of the desert. We, as surprised, the distance from home, they would spring to the ground and seem behind the nearest brush, plainly advancing towards the burrow.
and seeking concealment behind a tuft of grass or

James H. Paine - The habitat of this species seems

and overtops that of the preceding species (Speckled

treequinnus) upon the edge of the desert, whence the

footbe pole to the high-sounding, we shot both

trees together, and observed that their notes and habits

were quite as distinct as their colors.

Pullus gallostris argentea - Many half-grown young

were killed all day and the early part of the evening.

Nelson killed all he could carry on his saddle,

vii. Our ride lasted all day

members of these Harris were seen in every direction.

Ye Mult-Star (Cassinae

macrotis) was seen in the foothills near Hall's

on our camp. A large herd of Mulr Star (Cassinae

macrotis) was seen in the foothills near Hall's

This was shot by a soldier of

Harpocnemus Fabriei, the pink Thrasher was

abundant all along the way. They must breed very

legally, for I shot a full-grown cock of the female.

they are able to alight with safety. Before the

dangerous point, white cacti, whose joints are armed

long, slender, sharp spines; and many were

been Relish which from the amount of these Cacti; singing

a perfect song, especially early in the morning and

towards evening. I killed one of the Lizard-hexes

and a Lizard-Wren at the same time, viz a green

baekid agama (Zerodura floridana, Sc. in Jorg)

I shot a female as the flew, against a male m.-

the instant, and brought her slightly wounded, to

the ground, where the male attacked when her and

they had eaten, after which both of them escaped.

running through the brushwood and cacti. Besides the

fear song, they utter a loud, explosive note when

collecting insects. I did not identify their nests,

but some large ones, built in cactus plants, were

probably theirs. In habits they somewhat closely

resemble the Eastern Thrasher; but once they do not

hide and sing in brushwood as much as the

out-rented Thrasher (H. crassicauda).

Poteridilla melanura - A few Black-capped

ensternuthur, a species that I never saw alive before,

you found in the grasswood bushes near the

foothills at the edge of the desert, near Desert Well.

They have a long call (like the Catbird (Dumetia cacao),

Anisopus Scarbuck. Nest of the Yellow-headed

It was found in a green-barked cactus near

Halls ranch. It was complete, but no eggs were laid.

The parents guarded their home fearlessly, roosting

in cacti.

Camp-fordyceus brunneicapillus - The 

Near West was exceedingly abundant. They were heard

roosting continually, but seldom came in sight

when near at hand. Their nests are seen in

nearly every cactus. The few that I examined

were empty. They utter a loud cry when alarmed

when wounded. The white-stemmed cacti (Cereus

Bicolor) I think it is the favorite plant, although

Their nests were seen in other species of

East of the Queen's Hip and Cerro-

Indeed anywhere in creeks about or little

Mockingbirds and Meadow Larks were abundant

and singing, a few Rough-winged Swallows

and Green-backed Goldfinches were seen at Hall's

New River. Ducks were scarce. Messa Fancher

singing, a few Shore Larks, Say's Phoebe, and

Tow Birds (Catharacta melanoptera) were

seen in large flocks, but one or two were sei
March 19th.

Broke camp at the Grand Canal at 6 o'clock a.m., and marched across the Gila, 20 miles, camping on the south bank of the river. From our camp on the Canal we rode all the way to the main street of Phoenix through a wide avenue of shade on both sides by hardy cottonwood. The alkali lake was a foot high in the sedges and a beautiful dark green color, thoroughly to be appreciated after riding over a parched desert. The town is watered by irrigation every field surrounded by an acequia. The water is taken from Salt River several miles above the town. The houses and places in Phoenix are cozy and there is verdure and influence everywhere. Roses, oranges and the Cabbage palm with in bloom; the bushes sur-rounded by clusters of apple, peach, figs, apricots, cherries and plums, with plenty of small fruits and vegetables. The population is composed of Americans, Mexicans, Chinese and Indians. Most of the Stockbreeders were Jews. All the streets are shaded by cottonwoods; and several species of trees were coming in the midst of town. Around of Red-winged Blackbirds were in full song: sooner in the cattail woods, and just as far along the ditches, their notes were lovely, cheerful and pleasing. That night my first specimen of the Seared Rose (Seskazilla seeedi) from a cottonwood bush near the road, and several others were seen. After crossing Salt River, near some native dwellings some of the diminutive, long-tailed Droves were found and a second specimen secured. Night Light Nicholson:service (Scottish american) Calling, but was not positive that they were not certain species of Droves with which I was acquainted. Many small birds were fleeting about in the dingy

near, complete summer blessing and they
are the first seen in this season in that condition.

Nev Desert Station the night after our arrival.

Figgy-cake was seen and eaten. The Chromlech
Figgy-cake (Chromlech rotundus mexicanus) was
seen at Hall's Ranch, but not between there and
Phoenix, the county line unwatered and desert.

No Humming Birds were seen after we left
New River, where Galapagos were very abundant.

A few Ele Lourdeks were seen about Hall and
on Grand Cattle near them. The Phoenix Lourdek (Ele
Scalaris) was seen occasionally along the route.

Red shafted Flickers were seen for the last
time to-day and$Lobostes chronoides was identified
positively. north first, although some of the
seen the better during the last day, or two they
near been Mallard's fliers.

A few Spanish Marm and Red-tail Hawks
were seen. Moun Chin and Lampert's Hawk
more plentiful abundance. I practiced using shooting
on horseback, while riding slowly along and
killed both Doves and Lizards.

Cactus-Mexicaner - Millwes have been
grown everywhere on our line of march, sometimes,
so to-day the most desert places. On the Grand
Canal, theircrete were sharply ruffled this outside
my tent during the greater part of the night while
I sat quaffing Guerrell and Birds.

Wattles only found at two places on our
March, a distance of 50 miles. At a place called
Desert Will, near the front of a low mountain
are a few shallow muddy, alkaline water-traps,
a crumbling building close by. Here we found birds
and Rabbit in great numbers. At Desert, Willow
is a deep well, but the water is alkaline, there
is a dry bed of a stream there, border by shrubbery.
Salt River was flowing, and we had some fun crossing it. My horse, Nellie, was the first to cross both forms. I had practiced a little way below the ferry, into four moving forms; two large and two small ones; the good old water of all of them. The river is well wooded with cottonwood and bamboo shrubs on the south side. A few ducks and two interesting sides of the side were seen; but we were not done crossing the stream, my horse having been swimming water. My saddle and other equipment were filled with water and I was obliged to get up and dry their patented contents, as well as my clothing. Meanwhile, Mc.Nally and I took a good notion for Salt River, not to find the current too powerful to swim against; the water was cold and pleasant. The horses crossed safely a few at a time, although a few of them were carried a considerable distance down the stream. Some Indians crossed on their little horses. They had a hard struggle to get across, but finally reached the shore. Their saddles took a bath in the water before being restored to order.

After leaving Salt River, we crossed a level plain where there were some prairie dog burrows, among which I shot a few prairie dogs. As we reached the Gila River, the road turned to the left and passed between a high mountain and a low range of foothills, through a scattered forest of pine, cactus, and sagebrush. Many of the mountainsides were decorated with dark spots of cactus, and Indian warriors sticking out of them, showing where Indian boys had fired at the horses. In one place a young bravo of the cactus about the size of an orange and three to four feet from the ground was marked by two arrows crossed, which indicated fancy shooting for practice.

At the Indian trading station of Gila, we found large numbers of indians and one of two adobe buildings and some coraline, owned by the trader. The Gila was very swift and we were obliged to wait a long time while the ferry was being stopped. Some big mud-hogs on the south bank, loaded with goods for us, who had been ordered for several days, while waiting for the ferry. I got into and lay down where the clay bank to watch the wagons and horses cross, but often fell asleep and woke up when it was too late. We were still ferrying our wagons across. A large group of Indians were grouped on the further shore and looked very picturesque. One of the Indians was dressed in green, some in blue, and the rest in red. As our tent was pitched for the night, and I had placed an Indian stake to indicate the place between the flags and counting until sunset when he wanted me to buy some green grass which he had gathered along the riverbank, which I was very glad to do, as there was no grazing on the way and not a leaf of grass in our camp. No hay was secured here. After this I was awakened by Indians anxious to sell us some grist; but at least I made them understand that I needed not our horse and had all I wanted.

At sunset, Dr. Mc. Nally awakened me. He had some lemon and wanted to make some lemonade in our two cups. While we drank our own lemonade, Dr. Mc. Nally called my attention to a beautiful white eagle (Garrett, ciliadissima) flying up the river. It alighted on a cottonwood across the stream at first, until dark. A few storks were also seen flying. The banks of the Gila are of a reddish clay, and bordered with cottonwoods, a few willows, and a broad belt of arroyo (stream) and other dense underbrush.
A number of Prairie Dogs (Capromys columbianus) were seen between Salt River and the Gila. The bottom tail (Capromys palmeri) was seen in Phoenix, and the Northern Jackrabbit (Lepus californicus) was seen on the desert between Salt River and the Gila.

A few mountain weevils (Craesus montanus) were seen and heard while traveling the desert. A single palmer (Trachycnus arizonicus) was seen in the desert south of Phoenix. Yellow-banded lizards were very abundant along Salt River and the Gila.

Yellow-banded lizards (Lacerta vivipara) were very abundant at Salt River and the Gila. Some were seen everywhere in small groups, especially in the town of Phoenix.

Lamina kidderiana, expiitabiella, White-tipped Pikas, and a few were seen.

Eupathodes forrusioni, House Finch, Singing about Phoenix in numbers. One of the most abundant birds is the Astragalus Feathertail. Grouse-billed Goldfinch, Landella greenei, Purves' Groomed Bunting, Groomed Bunting, and Black-billed Cubby, Black-throated Sparrow. A few singing near the Gila and Salt River.

Ceratulopodes rapturanae, Mexican Grass Hawk, Singing: common at Phoenix.

White-crowned Sparrow. Very common in shaded places at Phoenix, frequenting the groves of cottonwood trees along theGila.

Melanophora Salamata, Salt River, Mountain Goose, Very common on Salt River and in the Gila. Salt Creek Melanocoryphus - in flowers.

Agelaius phoenicus, Red-winged Blackbird. Some of the Montane species at Salt River and the Gila.

Chiricahua Salt River and the Gila may possibly have seen a number of great horned owls, although one caught a small bird in the early morning. A few were heard singing near the Gila.

Socleophaeus cyanopterus, Brown-headed Cowbird, Molothrus auratus, Abundant on the Gila River.

Corn ear worm, Corn Ear Worm. Several were seen.


M…andulus arizonicus, Abdominal Flycatcher. Fischgold's alexandri, Black-crested Flycatcher. Only one, on the Gila River.

Lark-like Flycatcher, Red-tailed Flycatcher. Fischgold's alexandri, Black-crested Flycatcher. Only one, on the Gila River.


Red-tailed Hawk, Mottled-tail, Turdus flavipes, Black-bellied Thrush, Abundant. A few were seen, Abundant. Hesperus hummeri, Mottled-tail, Black-bellied Thrush, Abundant. Turkey Bussard, Armadilla, Sealed off, first seen at the Arizona cottonwoods heading to Phoenix, where I shot a female. Several were seen in the town of Phoenix, and I procured one of the specimens on the south side of Salt River.

Montana gambelii, Gambel's Quail.


March 30th. Temperature 104°F.
Left Lila Indian Agency on the Lila River at 6 o'clock and marched 16 miles to Maricopa, on the Southern Pacific Railroad.

The entire distance traversed was through a desert, bordered by distant foothills, along the edge of which are spots of Saint Lucie, some of which were found along the road. A plague of flies was crossed a few miles from the river, along which were some cottonwoods and a quantity of lites and cat tails; also plenty of green grass, in which chickens and hawks shrike were singing.

The rest of the country was bare of grass, sandy, and covered with scattered saguaro and cacti (Ochlocereus, Cereus, and Cephalocereus), with occasional areas of bare white sand. Before the evening's repast was finished the day was intensely hot. The little thermophiles (E. pulchridens) were very abundant, and none of them were shot. An Indian seemed to take great pleasure in seeing one shot at the end of my horse. He would ride ahead and point to them.

Another interesting discovery was a tepee thatched with Saguaro needles (laciniae (lacinia)), one of which we found on the road. The Indians, both of whom I shot. They ran and hid with much agility and cunning at the Runamuck. Some large white lizards retreated into their burrows at the side of a sandy grove, and assembled there, while they were being shot. The morning's work was done, and they disappeared from view. They willow arose from the ground, but them only determined over the shrubwood a little way and then ran swiftly in zigzags among the brush and cacti. They were searched with great trouble and exertion, for which them were doubtless the most highly prized. The Junie's ome showed that new eggs would constitute the coming meal, and they would soon have been defiled. We were glad to reach Maricopa, when very much heated and exhausted. Just as we reached the town I saw The Ennis Fighter, (Dr. Main), macorming) fishing upon a bridge over a dry ditch, and received the specimen. Home of the mountains Chief or Bighorn (Ceris montana), were nailed above the doors of a corral. We afterward heard at Jackson that Mountain Chief occurs in the Santa Rita or Santa Catalina Mountains, and that several were killed by hunters there during the last winter and sold in the markets of Fuka. Long lines of yellow-headed, bowers and bow Blackbirds scattered the town and field.

In corral of Maricopa was a stallion that at the hotel we found good food accommodations and bottles, but slept in our tent, after storing our birds and Thermopolis—and of them as were not spoiled by the great heat. Temperature 104°F. The water at Maricopa is supplied by wells which are several hundred feet deep, as we were informed.

March 31st. Temperature 103°F. in shade.

At 6 o'clock and I went out hunting early the next morning, and were gone from 7.30 A.M. until 10.30 A.M., when the absolutely heat drove us back to our tent. The Black-Throated Sparrow, Boswell's Sparrow and Mocking Bird were the only ones at first met with. Boswell's Sparrows were in small flocks in the sagebrush and cacti, and sounded a quiet, even, musical song, and somewhat resemble the song of the Warblers of the Helminthogla genus.
I had heard, seeing in some museum
books an essay a long way off ends, I started
immediately, but they were not the same. After one
long, long before I could get within range, and
finally entered and met the two who had found
a nest of some centipede birds and brought the
eggs. They have not been identified. They are
a little smaller and are more elongated, but it seems
as if the eggs of the Frog-fauna that a bird
nest, ever resides on the barren desert region.
However, our nest was totally different
from the Chaco, being globular with an entrance
at the side like the Echinocactus. It was built
in a large lumpy cactus (Queretaro). We were just
about to find more nests in the cacti,
and found an egg-nest and quite of eggs
exactly like that described above. We also found
several nests and eggs of the Cardon, a large
cactus, and a few other cacti.

The day was cool and sunny, comparing favourably with the best
summer of the Cacti deserts. The sun was shining down, and
forming a part of each night under cover of the desert
according to the fact. The Moderate like a Chaco, four
lights were very different to follow, and of them managed
to hide the fourth and myself.

Nests and eggs — We found a nest of the cacti
within containing two eggs and a flat rock. Another
nest contained two eggs and a flat rock. The eggs
were found in a cactus. The eggs were totally
different. They were not brown. One was small and could be preserved in the usual way.

But the eggs were dried and afterwards described
minutely and their dimensions better, although
there is no clue to their identity as we birds cannot
recognize the nests. Another of the nest was found
containing two eggs of the Forr. It was a very
beautiful nest with slate color and small size, and the nest
had been lined with feathers of several species
of birds as well as their own.

The most interesting phenomenon observed
was the Mexican Juan (Chamaelurchus floridae), a species
which I had never before met with. The Northern
Jacksland (Lophozostoe), was also seen.

The salt plains in the vicinity, covered with small, very
lance of vegetation, and hence characterized
by a great variety of animal life. These are
wild flowers, of the Chaco plains, with other areas of
vegetable vegetation, with a few Micronauta but
no crabs. Along the dry arroyos are many of little
quintas, larger age together with a nearly
blustery weather and thickly covered
with occasional patches of handsome trees.

Each two or three feet in height in which large
organisms live. They are not only
near the ground, but at the highest point. The large white
bears were large, and young, and even
covered with the leaves of the vegetation of
the desert. The Chamaelurchus (Chamaelurchus floridanus) holds away, and
to a few village ones are found all over the area
of the desert. The "parsnip" central (Cephalocereus n. s.) was
occasionally seen, and had large yellow fronds
in a circular cluster on the ground of the plant.
They are as far as a small lemon, the fruit
interface, tawny, taste, and filled with large black seeds.
April 1st. Maximum thermometer 104° F.

We started from Managua early in the morning and reached 20 miles to Casa Grande. The country was a level desert with alternating belts of sagebrush and grassland, with mesquite mixed in places forming groves. A Batrachoid was killed the first day on the 25th. The ranchers were met with almost as late as the station of Sweet Water, where it was left behind. Our next stop was at Red Rock Station. The most common poultry were the fowl. Although a number of these fowl birds were seen, they were so exceedingly shy that only a single specimen could be secured. Their habits afoot and habit of roosting again varied, as normal stock birds being described.

Sublette's Fowl (Herpestes sublettii) was seen today, although it was not taken at Managua yesterday. Sublette's Fowl was also common and both of these species were found. Many nests of the Burrowing Owl (Coppia) were noted.

Our next stop was at Managua where we found several species of birds nesting in the brush, and caught a young owl which led him to the names of several villages of the Masayas, making about 40 miles. The new Dark Rabbit (Lepus gambianus) was again seen. At the rainy season, Managua appears a light brown in color, and with the warm winds which blow from the west, which are very dry and hot.

April 2nd. Maximum thermometer 103° F.

At Casa Grande, we found good stores, and lived in a supply of lemon and oranges. We got on the road to Trident. It had to reach a certain time the town and collect a boomer who was drunk, and fell off his horse before we started. At that place, eight o'clock before we got away from town. An un quota of 19 miles to Picaque Station, arriving early in the afternoon.

The country the same as yesterday. Grassland, brush, and a few with hilly places and small groves, eaten by burrowing owls. Mathew's Rabbit was seen to most of the grasslands. The new species was very abundant, as many as five or six being seen at once. They walked together and run slowly, and hard to approach, running sometimes clear out of sight across the level desert.

Their habits were not much affected, but the rabbit was spotted, and the flight of the gray rabbit, which we found behind the brush, was seen. The two species were live by itself, and maintained their subfertile character. The fact that the Mexican hare is much larger—and the fact is contrary to the generally accepted opinion of authors—than the Northern hare leads me to believe that the two so-called varieties of Lake calitotone are two distinct and different species, living together in the region bordered by ice and thicket—also that the characteristic distinctly under the influence of the same conditions of environment. There hare come into the corral to drink during the hottest and driest summer, in droves of twenty or more.

A few days brought with the rabbit and chow, we could see into our camp, and pick hens and eggs, and the Location hunted wild duck, pheasants, and quail, and two geese were killed.
April 3rd

We marched 44 miles to Red Rock Station. The country was about the same, except that vegetation was more luxuriant. Arborescent forms of cacti and a large number of thorny cacti were found, many of which we thought were mixed with other plants. In a branching point of a large cactus we found a nest of the MacGillivray's Thrasher (Toxostoma cinereum). Four heavy charges of shot at the base of the branch brought down the nest. The nest was over the bow cavity, built with the dry and arid conditions of the cactus forming a hard mass against the cavity resembling the shell of an egg. In this manner were these nestlings. They are evidently early broods. The eggs as well as those of the Cactus Wren and several species of Cacti might easily be obtained by the aid of a ladder; but we had no means of reaching the nests in the holes in these enormous cacti, which afford a home and shelter to several species of small mammals. Cacti were found on the arid side of the branches, and Hawes, Stowe, and the House Finch also make this singular plant their home and defense. None of these Cacti are of s""
April 5th

Marched from the acacia near Tucson to Fort Lowell, A.T., eleven (11) miles. The Doctor and I left
W" back early and reached the acacia and rode along
the Mexican gravel, and the mesquite groves and
acacia near Tucson. We saw the Red-headed Sparrow
again here, and the Rose-headed and Mexican Grosbeaks.

The latter (Cicinnurus rufus, or Sagra) are the best
times. I went (Elton) and with yellow heads and feathers

were exceedingly abundant. The former nesting among
Andean Warblers and the Black-chinned Hummingbird
were abundant in the usual hard-wood groves of tall mesquite.
The latter were built of acacia roots which are very
thick, and many mesquite, there are growing on the
grain-fields of the Mission. They seemed to have
a great many children, and were fond of them. Our
hands brought old man was holding a little child on his
lap and kissing its forehead. Other flowers are seen
by acacia trees, e.g. the many species of

bushes were nesting. The old Mexican town of Tucson
is quaint and curious. There are many handsome
residences and one or two pretty good hotels and
some public buildings. The houses are often
having a porch around the second story and an
arch corridor through the center. They are square
to rectangular with (most) flat roofs. We called
upon Father Antonio, and found him very polite
and courteous when we explained that our object
was to obtain a permit to visit the old Church of
San Xavier, and wrote the permiso. Father

The Doctor did the writing and the good priest was not
performed what my name was, so he wrote "admit
Bravo and his friends". Unfortunately we were made
to avoid all of this permit, as our horses were
too much lagged by the long marching and heat, with
little food (or insufficient water). The ride from
Tucson to Fort Lowell (11 miles) was pleasant over
an excellent (tread) road and sloping to the base
circuit and orbital circuit which runs the South Plujo.
River, a small stream that is still divided being
on the rear of the Peak of Fort Lowell. The hills
of the Cacti were abundant and a peculiarly occluded

of Cacti and Palms. These curious and

Moore, Pictures of Mexican Indians. The Mount, but
none of the Northern varieties. The principal, of all,
Ocer view.

April 6th.

In early morning, we decided to visit the Post.

Dr. Hopkins and myself went shooting. We followed the Rillito a mile or two and found birds in great number.

We found one nest containing young that were already able to fly. The Chisum-level ants were excessively abundant, and even the Turquoise geese were abundant. The Chisum-level ants were exceedingly abundant.

Dr. Hopkins shot a beautiful diggerous, and we did not carry it home.

The Chisum-level ants were one of the most abundant birds, and singing everywhere.

The Chisum-level ants are exceedingly abundant.

The grove along the Rillito is pleasant and inviting, and the grove along the Rillito is inviting.

The grove along the Rillito is pleasant and inviting.

The grove along the Rillito is pleasant and inviting.
MARCHED 18 miles to Mountain Spring. While several miles from the Post我发现 that I had left my game log containing my notebook with all my financial written notes and one or more valuable specimens. Mr. Watts said that our camp had doubled from what it was before then and that in all probability my notebook would be found and turned over.

The Territorial Survey to Dr. Hopkins, as it was labeled "U.S. Army medical Department." on the cover. The book contained information about the Black-capped Chickadee, Black-capped Chickadee, and other species, which were burned away for lack of time to publish them. The fact that miles was across a level sandy country studded with cacti in many places and groves of large mesquite, Joshua trees, and sporadically. The Woodpecker was playing about, and even in the great cacti, the familiar, because resembling the cactus — Trees of Melodist's. These means from cacti or mesquite all along the way. We got down a giant cactus containing a fleck seedling. This required a number of charges of black shot, and resulted in destroying the single egg. Some occurred in the base of the cacti. The burrow was dug out of the sandy crown of the cacti to one side of the woody column meant to form a central support to the mushroom.
could not be found. When these foothills were
splendid display of the Spanish Broom, and Yucca,
Blanket Flowers and the clusters of spiny round-like
ferns and delicate spires of fuchsia-like copared flowers-

(Chamaerion angustifolium). The Broom in
summer bloomed with a profusion of bright yellow
flowers which attracted many honey bees. The leaves were
spiny and the thorns sharp. The Bruce's Holland
are distributed east and just after the first few minutes of
some march, and finally froze replaced (finally) the clumps
of cacti. The San Pedro Cactus were built in their
and distributed east and Yucca plants, native to
the north and south of the Union became more.

At the Alamos, the San Pedro is a more delicate,
changed by a single length of thorny vegetation.
This growth there is the best built and cacti that
care been in Arizona and the eastern desert is.
people, I was informed, are sometimes, bitterly
using made a fortune in the cattle business.

The Harper's were singing in a lively manner
in the Cottonwood (Chiliza).

Marshing from Mountain Spring to the Alamos on
the San Pedro River, miles. Wednesday we left the
first desert plain on which we have been traveling.
were a few miles on the 28th
of March, and began to gradually ascend although
the rolling country. We filled to pass through a
rocky gorge where I collected the Euphorbia
(Chamaerion angustifolium), but an
examination of this species failed.

The latter grew high up in the air and clustered in one
spot with their long arbing long, then descending
leaves, trailing to the top of some bush or tree.
The former grew low in the air and scattered in one
spot with their bright green, street, then descending
leaves, trailing to the top of some bush or tree.

The names of the birds are fairly pulled to be called
away. The country was rolling and rocky, covered with
vegetation, such as sagebrush, mesquite, and stunted
mesquite, although in the neighborhood of streams.
April 9th, 1866.

We had a long march to make, and do so early and left camp before daylight, marching 41 miles to Frick's Ranch, making the longest march on the trip. The road was good, and in order to reach camp before dark we delayed very little to hunt for游戏中. The country was mostly rolling uplands with occasional deep ravines and small clusters of several miles extent, then for 26 miles rolling and everywhere covered with covered grass, without shelter or trees, except where the sparks arroyos crossed the road.

A few White-tailed Deer (Odocoileus virginianus) were seen early in the morning. They were seen first off in pairs upon a tall mesquite or desert willow, and uttered a note like the Guineas; fully loud enough to be heard half a mile. They also utter the same note when in the pack. They were seen on a valley near the hills. They flew long distance and over a hill with some greater speed than Gambel's Elk with which they were associated. Both species could have been killed at the same shot.

Two eagles, an osprey, were seen and seagull. At one time 1000 geese were seen in the field. The flight is nearer shorter, the flock whirling and dig in different directions. Forward the end of the morning, while near the Point of Mountain Air was found the short grass meadow, then from any bare of water. At Fort Grant the elk, but two of the Gambel and Massara) were seen.

The early part of the day was spent in rolling rocky country, which the White-lots appear to like. Gambel's Elk was seen with them, once in the same flock, or at least in the same place at the same time. The largest flock of White-lots seen, contained about 400. They frequent the prairie bottoms and just such Massara and Gambel's.

Which they resemble in perching on trees and shrubs of morning and evening and calling loudly. Although when first discovered they usually try to escape by running with great swiftness and hiding behind banks of grass, shrubs, boulders or in grooves, they usually hide like more closely than Gambel's.

When a flock divides and disperses in different directions it is very difficult to find the scattered birds without a clack.

During the first part of the day we passed many vultures, hawks, eagles, and buzzards, several of all the species, and saw only one oak leaf, besides a string of one of the trees. I climbed the live evergreen oak, examined an old root, probably a Raven, as it contained feathers of that bird and was burdened with sage, barkly, the old clothes of the dead root, etc. At camp the Raven builds on ledges of rock in the cliff, and the next man has been that of the White-tailed Ravens (Corvus cornix audax) my pet Querel. When I shot a day, on the wheel, to sharpen at the Point of Mountain Air, little wind, shot another on the hillside in a Prairie Dog town near them.

At the Noire is a large village of Bastian's Springs (LagurusTriquetra, Lagurus amphibius), and Bedewing (Pleurotus californicus), which are usually for 150000 with game. For a couple of hours, while the roots and boulders scattered red, the men still stop, and shot several Prairie Dogs with their bow. For miles the burrows of these animals
were thickly scattered over the level plains of the prairie and, as probably, better suited to their habits than the light sand of most of Virginia. Here the "Dogs" fanned over the country and their prey lastling was successful, and their tamaconis surprising. We had no difficulty in getting near enough to shot them, but their burrows are constructed so that they can end of each before they can be reached. If not killed perfectly dead, and even when shot bad their elbows become doubled up into a ball and when the stick is removed of their heads simply by gravity. Many of these that we killed could be heard whimpering at the bottom of the ground. Their tale, quite out of reach, but we managed to recover a number of them. We found that a shot delivered from precisely in front of the animal as it sat at the top of its mound with head and shoulders above the roof of earth that formed a breastwork, would almost always kill them dead. Dr. Fillmore shot two at once that were barding together in one hole. A good many were injured, but no grounds around them whatever. The Cuyune were shy and would fly ahead of us until, when tried of leading us on, they would enter a burrow. The commonest way in the mouth of a burrow just below the level of the surface of the ground, if more surprised would fly out or drop down out of sight. Others would sit with their heads exposed, slowly emerging out of sight as you approached. The usually occur several hundred yards at a flight. On the Wissi, they were very plentiful. Dogs were taken in all, and number of the were exceeded and slain; but a few, however, were quietly destroyed; along with all the Money but one, much to my sorrow, as we did not have the.

Place on the return trip. After leaving the "Prairie Dog" town, we crossed besides a level plain where it was good grass, but getting but hundreds of Northern Jackass Hares (Einzellharen) could be seen. We reached camp just in time to arrange our tent and belongings, and eat our dinner before dark, and were glad to hear that no more

The Cuyune are big enough to turn the head, affording an opportunity to prepare our specimens. Our bags were as follows:

Dr. Fillmore.

<table>
<thead>
<tr>
<th>Species</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>White-tail Quail (Callipepla squamata)</td>
<td>1</td>
</tr>
<tr>
<td>Lark, Quail (Lophortyx monticola)</td>
<td>1</td>
</tr>
<tr>
<td>&quot;Prairie Dog&quot; (Cynomys rutilus)</td>
<td>1</td>
</tr>
<tr>
<td>Lizard, Racer (Cnemicyclus cuneatus)</td>
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</tr>
<tr>
<td>&quot;White-tail Quail (Callipepla squamata)</td>
<td>15</td>
</tr>
<tr>
<td>Lark, Racer (Cnemicyclus cuneatus)</td>
<td>6</td>
</tr>
<tr>
<td>Burrowing Owl (Geocitus gallicus)</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
</tr>
</tbody>
</table>

April 10th.

In camp at Trudy's ranch. Skinned Prairie Dogs and shot all day. The White-tailed Racer (Cnemicyclus cuneatus) is very abundant at this ranch, and extremely tame. Several were shot by the chin; and I gave Mr. Nally my shot-gun to protect me a premium, which he did immediately. It was very hot in camp. An ambulance with some officers and ladies came in from Fort Grant on the way to Willcox to the Railroad. About six o'clock from him. We Nally shot a lot of rabbits and reported nothing else to the scrutiny of our camp.
April 11th.

To-day eight troops of the 5th Cavalry will encamp at Anche Ranch, and join us at Bowie Station to-morrow, together with one troop from Fort Bowie making seventeen troops, one troop being stationed at Jefferson Barracks, Mo. We marched 22 miles to Bowies Station. One country was rolling, covered with excellent cured prairie and black-grass grasses, with a few low mesquites and occasional patches of sagebrush, in which a couple of Sealed Envelopes (valuable squawmen) were seen. Then we descended to the railroad where it crossed the Chiricahua Range at a point named Railroad Pass, separating a spur of the mountains, the Santa Anna, from the main range to the south, when a prominent peak crowned by two, ridge called the "De Catagos," forms a prominent landmark. At Railroad Pass we got from Galindo's Field (Guerra Caccini). It was impressing now, too, among Americans Guerra depicted on a small scale, the top of a big peak - a barren mesa. The only other body of especial interest we Colorado River (Colorado Indian) which was abundant all the way to Bowies Station. No bees were seen on 2 days' march, and scarcity of strawberries past along a dry bed of a stream between Railroad Pass and Bowies Station. At Bowies were a number of Burrowing Owls which infested the neighborhood of the slaughter-house and were studied soundings their remarkable notes during the night.

April 12th.

From the 5th Cavalry we heard that our officers would not wear their uniform as the best man of good nature and satires on the subject of our apparel, having been "jumped" on by the Colonel for not wearing my uniform. He (Col. Broadtail)

In camp at Bowies Station. At 9 o'clock A.M., and the sky remaining clear at three o'clock, having left Fort Brownston at 11 A.M. My two Private Edwards, Warner and Humeacker I reported to me; but the two. A.A. Sweeney did not arrive having been unavoidably detained. Mr. W. by chance the order, and the Carter was superseded by a civil servant as a witness. My duties occupied much time but I made an opportunity to select the choice of a pair Colorado Railroad, Men's "White Top" Zephyr, a Burrowing Owl and the new Carrying House that at Railroad Pass. I five miles away. I found the name of the Prairie Dog, Colorado River, the Great Yellow Dog and several other things by which to keep a trial on the grounds. I prepared the White of my luggage and prepared for the trial at Deming. I regarded it as a great misfortune that I had no Medical Officer to assist me, as I had expected, and subsequent events confirm me in this opinion.

Besides Burrowing Ous, Blackbird, and a few Sparrows, Siskins, etc., nothing of especial interest has been about our camp, excepted every a good bath in our tent was engaged. Deposited not having had time to visit Fort Brownston, distant only 14 miles, a valley in the foothills of the Sierra Madre, marked by a high peak called Helen Peak. The Fort hills inclined to be very probably seen or eight miles away, wooded with bushes, looking attractive in appearance from this distance.
April 13th.

Marched to San Simon, in San Simon Valley, 16 miles.

My orders were to ride on the rear near enough to the column to be accessible if needed, and from our position on the flank, we had a fine view of the approaching regiment, which was given to the poetical mind of Dr. Claudemus the Illinois, “See the mighty line advancing, Satan leading on!” The electric steps, headed by the colonel of regiment and led by the example, were smart, quick, and very effective. The sun (excepted) was followed by a large train of wagons, ambulance, and private vehicles, made quiet in an improving cardinal.

The last 60 or 70 miles was destitute of bushes. The wild grasses and beautiful flowers covered the ground. The yellow pincushion covered hundreds of acres, and we found numbers of a pure white variety of the same, the so-called white prairie, or variety of the pincushion, also abundant. A foot half-way made to a wide area of grass and wild flowers, with patches of mesquite, sagebrush, and yucca bush interspersed. A number of Mourning Doves and some Jack Rabbits were the only animal of any size, except a few Tegus and Seripta-Ramus.

A nest of the Black-headed Bunting (Mohelko, whistler) was found in a low, Plerobolus Quebranmi, the old bird staying when the nest. The four eggs, unmarked considerably, were accurately “flown” and preserved, along with the nest.

Only one or two small antelope antelopes were found. A large hawk, possibly a hawk, was found in a Mesquite and Yellow Starfish site, very numerous.

April 14th.

Left San Simon, Virginia at daylight and marched 14 miles to Stevens Pass, New Mexico, arriving there early in the afternoon. Distance, 14 miles. We crossed the New Mexican line about 8 miles west of the railroad station of Stevens Pass. The last mile or two was up a gentle slope through which the S. P. R.R. passes.

We left a passenger train running northward over a down hill grade at a very easy and quiet rate. In the Pecos were very few bears. Handcomb scarlet coats, and crimson draperies of Spanish bayonet flowers. Dr. Claudemus planted a beautiful bloom for Mrs. Russell over a table, these are more costly and some large again. We found Brown Thistles near containing, but (usually) matured eggs. At noon arrived the Pass, the valley became broken by dikes galleries towards the foothills. The flowers and plants were about as yesterday — Spanish bayonets in White, Yellow (Conchylea). Fragrant, White (White), and Orange, Yellow (golden), goldenrod, sagebrush, snakeweed, and a few others. Many large snails were found in Mesquite, Sababa, Rosita. There were a number of nests of the Yellow-headed, L. L. C. contains leaf ground, once red, but now most of the Rubber Wood in an arborescent state, of which the plant there are very few, and in the yachts of the San Simon Valley traveled by us. Cormorant Threshers were seen by the river and positively identified. There were both species of Ramus (C. C. cormorant, nee.

A soldier, noted, gaiting well, was better by a bitter wind on the thumb, but skillful learning these hairs, immediately applied a stream of his unit, scowled, and looked the wound, and after it was cautiously then the thoroughly, meanwhile one bracing him on whiskey. The was returned for duty, next day.
There were a number of large snakes called by the Spanish "Rattlesnakes" in our camp, each one that measured 62 inches in length. I was caught by Mr. Riley behind my tent and brought to the olive, where it was enclosed by a rope. I allowed it to escape by my boot-leg with several turns of its little body, and was contented at its constelating force. Our camp on the summit of the Pass was exceedingly picturesque and lovely, divided from some neighboring hills by a slight incline in height of scenery. Nothing of especial interest was found in the few scattered sedans, which, by the way, are the only trees encountered by us, except those seen from distant mountains.

April 16
Marched 23 miles at a walking pace, on account of Fort Selden and Spanish wolves. In an area of dry flat so-called, Scotty Cubley was doubled up; but I did not then know where to look for the fault, which, however, I subsequently discovered near Fort Selden in Arizona. I shot one of these beautiful Cacti, but it got up and flew away over a flat, which was the best it could do. A fine Raven of boisterous gait was found here. I shot a White-headed Raven (Cathartes aura) that flew overhead at a height of 500 yards and then fell dead and was found and preserved. Our last camp was on the summit of Steens Pass, with a high deck with rocky precipices rising on either side. At the foot of the Pass, a mile or two from last camp, we reached a wide valley, in the centre of which is an enormous area of smooth, actually glittering, pale clay-colored soil, which looked like a lake at a distance. A wide margin along the edge of the valley, many thousand acres in extent, was covered with a rich growth of excellent grass, among the roots of which quantities of small animal shells were seen and specimens preserved. It is in scenic beauty one of the Southern Chile Parks, evidently breeding, as shown by the condition of the abdomen of a female that and preserved. The male flew and fluttered over the body of its dying mate, and was not frightened off until it was within a few feet of it, and then it fluttered and circled overhead. When the level centre of the "alkali flat" is thus disturbed, not a coring or vegetation exists. The smooth clay surface was finely multipunctuated, but to have that our horses' hooves would have left an imprint. The Railroad, for some unknown reason, here describes an arc of a circle; and we cut across it and so easily caught up with the column, although we dropped on the way to eat our lunch. There was a strong wind behind us which made it easy for the animals. The magpie dallyed across the tracks, searching for a future. We next crossed a series of ridges, cleared rather scantily, and grasswood, where the burrows of the Mexican Burrowing Owl were abundant, and the owls themselves often seen and heard. The town of Fortsberg is quite a pleasant little frontier village, indicated by railroad and steamship. Here we met last Williams again. From Fortsberg to Camp(3 miles) nothing of interest was seen. The only Mammals seen today
were Shrews, Mice, Southern Pocket Gophers, Desert and Northern Jackass Rabbits, Wood Rabbits, and tracks of some species of Deer which we noted as "Cautious Otters." With a query.

Birds: - Not so many as seen since Sage Thrasher, Mockingbird, White-crowned Sparrow, Black-headed Grosbeak, Northern Mockingbird, White-throated Sparrow, Western Meadow Lark, Brewer's Sparrow, Hutton's Vireo, Grey Catbird, and Yellow-headed Blackbird.

Camp near Indian Creek. The White-tailed Deer and Coyotes are quite tame. Both of them follow the command to pick up the food they look for.

April 17th.

Marched to Sage, New Mexico, 30 miles. Bivouac at 3:30 p.m. Reached camp at 11 o'clock, a.m. The country is a sloping, prairie plain, with occasional groves of Dunes and Spanish Lilies. Mountains are usual on all sides, but few birds were seen.

Antelope signs everywhere abundant. Very abundant Gophers show that they have been present in large numbers. Deer tracks were also seen. Badger burrows were numerous. Northern Jack Rabbits were seen. The only Birds seen were: Whitetail Grosbeak, White-throated Sparrow, Western Meadow Lark, Brewer's Sparrow, White-crowned Sparrow, Hutton's Vireo, and Killdeer. The Clay-colored Sparrow (Spizella pallida) was taken and observed for the first time in my own experience.

April 18th.

Bivouac at 3:30 a.m. Left camp at 4:45 a.m. and marched to camp one mile east of denim, New Mexico, the terminus of my journey, arriving there at eleven o'clock a.m. I started 21 miles (20 by train) the route, as for several days past, lay through a wide prairie valley with mountains on either side.

Mammals: - Coyote, Badger burrows, and Antelope. Wood Rat, Northern Jack Rabbit, and Southern.
side. Some isolated peaks and mounds were
ossed at no great distance which were perfectly
brown and chocolate although there was a little
more vegetation - Spanish black vetch etc. - along the bare
No shrubbery except small bushes; and much of the
land was bare. A handsome male specimen of beaking
finish was shot. The singular, insect-like song of
the Western Yellow-winged Thraupes was heard on all sides;
but they were so hard to see in the long grass, and so
hard to flush as they ran mooselike through the
grass, that none were taken, as we had little time to
alter, being obliged to ride within sight of the column.

A number of Horned Larks
were found in the loose soil around Semin, but none
cought together, and some of species precluded, as skins.

Not far from Lake I flushed a Melting Snow
Loaf from its nest, which was built like a Canoe
Sturdillary ostrich. The nest contained three eggs.

The parents were perfectly fresh, and we
pressed and transported them away to
Alone, I am a naturalizer of the Cornell and built near
some tuft of yellow poppies.

April 19th.

In camp at Semin. Windy and dusty.

April 20th.

In camp at Semin. Windy and dusty in the vicinity
of town with Dr. Clendenin. Semin is built on a
barren, dusty plain. The country around is barren
and unproductive. There is scarcely any grass. Mexican
sage and shrubbery the only shrubbery.

We are on the town, which is as unattractive
in the daytime as it is treasured and desolate
at night. It is in short, quite typical of those
western border towns. We found a chance to
salmon, salmon, and fished some salmon outland,
which was very refreshing after our dusty towsat
or the high wind. After making some purchases,
we returned to camp, where we found our tent
covered with dust, one of the Alpaca having foolishly
and bunch a sheet of thin sheet over our bedding
and baggage. With our tent back up with dust
we found it close and disagreeable enough, while
outside it was still worse. We got temporary
seen some Cougars, Bob-Horns, Emmet Beetle and
Northern Jacks, Jackals of which later I procured
a female specimen having a singular deformity of
the skull with accompanying distortion of the teeth.
The birds seen were: Morning lark, Lorax
Thrasher, Red-eyed Vireo, White-tailed Shrike
Western Bluebird, Intermediate White-breasted
Sparrow, Brown-headed, Black-breasted Sparrow
Fox-tailed Sparrow, Brown Blackbird, American
Raven, White-headed Raven, Red-winged Flycatcher
Sparrow Hawk and Turkey Buzzard.

The specimens caught here: 6 Jack Rabbit,
2 Red-eyed Vireos, 1 Intermediate Flycatcher, 1 Red-eyed
Thrasher, 1 Fox-tailed Sparrow, 3 Brown Sparrow and
1 Black-headed Sparrow. Total 10.

April 21st.

In camp at Semin all day. The doctor and I had
intended to drive out to old Fort Cumming, but a
horrible dust storm prevailed all day and night.
Unable to leave camp. Saw a tent, with blindness,
among them our tent. These officers, notice
were down congregated in the domain of
our more fortunate comrades. Our tent was
packed all day; and every one was goodnatured
and jolly. The sight of mules and horses
The light wagon had to be lariotted down to the ground
came a howl, howl, howl and much grumbling.
April 23rd.
The 3rd Cavalry left Deming in route for Texas at sunrise. I found it well to Miss Backell and the Captains, Dr. Clandenin and T. K. of the 3rd.
I'm camp all day with the 10th Cavalry.
Weather a little wet and dusty, and disagreeable. Left with Capt. T. G. Baldwin, Mrs. East, William at Deming, and met Mrs. East, Smith and there.

April 24th.
Marched from Deming to Sage New Mexico, 21 miles (200 from Deming). The landscape then I pointed to and any kind came with me. Yoshku (John Michael Souther) now seen about Deming.
The only kind of Special interest was a specimen of Prumia plants towards which I shot near Sage. The country a wide valley, with a few low mesas, just unfolding their leaves. More grass or either hand, and good grass off the first six or eight miles. The day clear and pleasant.

April 25th.
Arrived at Sage, built of Pen grass (Queens) with cedar posts, with a lot of Doward Yellow-jawed Blackbirds, which species we also saw at Deming. The Blackbirds notes are unique and jarring with the sun. At Rama Swallow (Hirundo Pyrrhoptera). We rode through the principal streets of Deming. A number of Hemipholis were seen in the mesquite around.

At 5 o'clock went out with the Red Rock am - pottery, between the columns and saguaros, I was delighted with desert and had no opportunity for observation. A pair of the small dark-coated Kettleheads. We lying at the entrance of their cavity, estimating within a foot of the trail over which the wheels of the drays had just passed. Shot both times. The country is grassy, with deer grass, Spanish bayonet and a few Indian earth. I could see that the vegetation, stranded in abundance towards the fort, was now rapidly covered with cedars. Still discernible in the distance. The mountains were very distinct and curious. Marshes with blue water-shining. Through the grass and sage笔记 seemed to exist at a little distance and the fort was assumed fantastic shape rising the a part of the trees being obscured. Below is眼中所见之景.
April 26th 1855.

Marched to霈teburg, 20 miles.
A broad plain between foothills, with higher mountains rising beyond, towards the South. drove the Chiricahua, cedar and yuma, northward... known. The climate and soils of Gavina hacienda (Paracu, cailos) entered the mission, but I was compelled to ride with the column and could obtain none of them. At Lordsburg, a Woodhouse Day, the firstseen since March, packed our camp and had plenty of food, and was waiting to catch itself to flight. Eventually, we crossed the plains from one accoutrement to another, but the only one seen on our march, east of the Agua Fria.

April 27th.

Marched to Steam Pop, 20 miles. After travelling a few miles, we crossed a low range of foothills, dotted with grassland and a few arroyos, and some of which for the first time, going rapidly, continued north of the Chiricahua Mountains. Chiricahua were very abundant and a loud whistling was constantly heard as we were passing. A Paracu (Horodas) (Paracu, cailos) was seen here, and Mockingbirds were abundant. A Chiricahua, that we saw near Simi going, could not be located, and was shot and preserved. Although small it was an adult, and its tumbles being largely developed. After crossing the range, we were in the Mexican South Dakota, where Mockingbirds were abundant. The Chiricahua were very abundant, and Mockingbirds were seen to enter burrows. A common species of the warm season, these Mockingbirds were very abundant.

April 28th.

Marched to San Simon, Arizona, 14 miles.
After my tent was struck, the rain fell, and... A Chiricahua (Ameiurus ameiva) was seen, and a single call made. Then it fell, and lighted upon the top of a tall tree at the cricket, and began calling a b-syllable dictionary like the common crow of the domestic genus. A Mockingbird was very abundant. A Mockingbird of several species was seen. It entered burrows, and was... as it also the Eastern Gray Rabbit. A few chihuahuas were seen, although this is contrary to the generally accepted opinion of naturalists. Young chihuahuas were abundant.

A round the bold cliffs, the only ones seen on the trip... were circling about; I was quite surprised that they would then. Rock Walls had young flying...
April 29th.

Marched 16 miles to Bowie Station, Arizona. Breakfasted early with Capt. T. A. Woodson, and then walked back 2 miles towards Steaine Pikes to a water hole where I had seen some Kildeers when marching, and thought I might find some little blue grackles, as I had only water in the region, and to surround by long grass. On my way back I saw a Mexican Short Leg (Crexmissa alboterica chrysogaster) singing its lovely song when the sun is a bush! I found the shallow-rioted country big, and found it a water course where donkeys were congregated in large numbers about the single gnat-tite of water, which was strongly calcilize. The Kildeers were there also, and the fowl taken and preserved. I returned to camp just in time to wash with the red cross ambulance accordant to the march to Bowie Station and Camped.

Many nests in mesquites were occasionally seen, but there was no opportunity for examining them. Nests of Western Meadowlark and Yellow-headed Starlings were numerous. Although there was nearly any cactus for the fowl to build in, the grass grew well and regularly disposed in linear rows in some places, like a currant hedge. Large lizards were very abundant. By the next small town lizards were often seen in the grass in New Mexico.

April 30th.

In camp at Bowie Station. We had muster of the whole regiment this morning, after which I got permission to go hunting, and left at eleven o'clock, an odor disturbing my sleep until the morning, and walked over to the Southern foothills, with the distance of several miles. I saw a ravine with foothills of the Chiricnua Mountains, which I ascended with many birds; and my supply of cartridges loaded with live shot had been exhausted on the way to the hill, and I had to use the same gun to retrieve the stricken of such birds as Costa's Hummingbird, White-winged, and several other desirable species. The Fay Vino (Vigna fava), sang loud and sweet. They also have a loud call note, and an aatory voice. Scott's Oriole (Icterus parisorum) was numerous and doubtless had nests in the vicinity. Nightjawks, Harriets, Intermediate White-rumped, Blanding's (Xorn-tailed) and Cedar Bunting and Casual. Marshers were also abundant. A Thrushes nest, found in a grove near the foothills, contained a nearly-hatched young and one egg; and young of the same species were on wings, as were also young Western Meadowlarks. A smile from the foothills near by a dry arroyo, I almost turned upon a lovely female scaled Quail, that turned off from the nest at good pace. The eggs inside my memory, were beautifully mantled and well brought safe home to Fort Verde. The nest was in the centre of a tuft of grass; perfect, circular lined with half-inch of the pure whites, surrounded by pretty yellow-yellow, and close bound a cactus (Carnicer) bearing handsome old flowers. The parent did not return during the quarter of an hour that I waited for her, then I followed her and got within a few feet of her, but she ran so swiftly and hid so deftly that she got nearly out of range and then flew. I missed.

Great cattle were more browsing plentifully. Some young were on wings. One out of 3 great crows was taken with the parent. All the male crows were not yet completed. The males were lined with feathers, many of both sexes of Quail (Leptoptilus gamblici and Callipepla gamblici), Scott's Oriole, Road-runner and Mourning Dove.
Mourning Warblers (Mourning-glory) and Yellow-breasted Chats were numerous, adding some small 5 to 10,000, coming from the foothills, and in fact greatly exceeded by the few Common Nuthatch, especially Townsend’s. Returning to learn, one other “White-tailed” was seen in a grove, returning to camp. It sat in a mesquite, and allowed me to get to within a foot of it. As the foothills are clover, many butterflies, Hackberries, and other green bushes, filled the mesquite along their bases. The Painted Pea yielded for the most part in sedges. One nest was built in a tall grassy reed, and others in sedges. Arisarum and Ash-throated Flycatchers were numerous. The premonition are broken. (1931) trees were very rugged and hard to climb. The striped-backed Horned Lark, like those skinned at Denver, New Mexico, was captured. Jack Rabbit, half grown were common. Cassin’s Sparrow (Sparrow butcher) was taken. They were much shorthair, somewhat like Spotted Sparrow, ending in a tail. I permitted to climb, but dignified with the title to “Sparrow Tail” after dispatching, which I had a ribb bone dinner. We had dinner, by the band as usual during the evening. Will probably remain in camp here to-morrow, awaiting the arrival of recruits and supplies. Magellanic Warbler and Brazil Thrush were found near here on the dry plain. Surrounded Curtis’ new barns of the tenement Danish Miller, the White, long-tailed Goshawk is common, here and all the way to Stier’s Pass.

May 1st.

Marched to Willcox, 14 miles. We were glad to leave nine companies of the 104, and proceed with the nine remaining companies, and the camp follows fairly reliably thence. From Denver, New Mexico, to Bowie Station, Arizona, the command was attended by fifty children and a few as many women, which complement gave the idea to the Artillery officers, a great abundance of work. Colonel Stewart, who had preceded by rail met us as at the stations. He was at last able to ride independently of the command and start the physical features of the country were closely and at my leisure. The latest news of the day’s ride was over a new route, namely, along the S.S. Railroad. While marching to Stier’s, we left the Railroad at Tucson, and did not reach it again until we got to Railroad Pass, near Bowie Station. Returning, we followed the Railroad to Benson, and thence to Mountain Spring in one day’s march, so that the distance from Railroad Pass to Mountain by way of the Railroad and Benson was all new country to see. The rest of the return route was the same as that going. Between Railroad Pass and Willcox a “Prairie Dog” village was formed. I shot one Dog, but it could not be out, for it burrowed although I could see it rising without, but it seemed to be one of several from somewhere, and wound another at Willcox, but it escaped, except the burrow. They were caught, bitten and sent into the nearest hole. Mexico, Short Tanks are abundant and Gordy. A young the first Plainsmen complete was later. Cassin’s Field (Pectoral Sandpiper) was chanting at various places along the way. Our flock of clay-colored Sandpiper, over our camp at Bowie Station, there is still snow on the higher pines on the sides of us. We could see the Point of Mountain, where the large Prairie Dog town lies, and I think that there found along the Railroad are a host of the same estuary in which case it covers an arm greater area than I at first supposed. The quality of their form and accompanying setting division of their bodies is very striking.
May 2nd.

Marched to Dragon Summit, 20 miles. A broad grassy plain or prairie with an alkalai flat dotted with vegetation and several miles wide. We reached the foothills, where a herd of antelopes were seen upon by the soldiers, but would not come near. The last mile was along a gentle slope to the summit of the peak, where a herd of Wild Deer were seen in the cedar-clad foothills to the south. The range of mountains south of us is well wooded above a certain elevation, probably with pines, while the foothills are more or less clothed with cedars. I began to run at dusk and continued hard until midnight. The herd of Deer having made down this fiel ridge, we continued on our course, and the gourds were filled with water belonging to the basin. Near Dragon Summit I found a dead long-eared antelope. There are a few such flowers here. The new Burning-Cobbs seen were nearly enough of any great interest seen in route. Westward supplies would fill away from these burnings with low approaches, flying several times and finally returning to the frontier where they glanced and enter it. Their flight is low, alternately flitting and soaring. The latter a call-note which flushed corn. Heaven's Mills had found a large colony west of the alkalai desert.

May 3rd.

Drove early and breakfasted with Captain Baldwin and then started out on foot northward, and soon found a village of Prairie Dogs and Cows among the rolling grassy slopes, and with much trouble succeeded in killing a handsome male. A Cotton-tail (Sylvilagus floridanus) in the village, and in the entrance of its burrow too. I suspect that they dig burrows for themselves; and I know that they live in them.

I rode with Captain Baldwin a few miles then followed an arroyo, along which were some Walnut and other trees and shrubbery. Birds were abundant, miscellaneous, and keenly enjoyed. My first was a curious little sparrow, all the way. I climbed to the summit of Madison Kingbird, when the thrushes made a great outcry overhead. A Moorhen, from the top of a marsh, blew through its thin, disjointed notes perfectly. Vireos Thrushes were very abundant there. Pilewos Thrushes were not seen until I made the summit.

Two nests of Madison Kingbird (Empidonax Traillii) were found. The first contained three fresh eggs, but I lost my foothills when nearly to the bottom of the tree, and took all of the eggs. The second nest contained a single egg. Both nests were built under Pipturus secundula. A nest of the Bishop Thrush was found, containing four young. It was built in a cleft-rock bush, the nest upon the ground. The nest was composed of grass and woodstaves.

A 2nd nest contained three 2 young and an addled egg which latter was flown away and preserved. It was built upon a prostrate tree just from the ground, and in structure was similar to the first. A young Kingbird was shot at, flew still, was affected lost out of my pocket.

Sans fléau salutaire — The loud chattering of flocks of White-throated Swift attracted my attention. I got on the highest ground, concealed myself beneath some grassyared bushes, and soon had a good shot, killing a fine male. When I examined it, the feathers were found to be brown, measuring 9.20 pm. Kept on and saw birds were flying and singing. Hummingbirds were numerous, but their distinctive was all of one species — Ficedula madisoni. Hummingbirds were abundant, but only saw five small flocks of
Margaret and I, one of which related. Their great spirit in running and strength of body was again noticed. The grizzly bear had scooped out a great hole, or found one where a stone had been dislodged, on the side of a clay bank having a narrow slit of an entrance like this, showing only a few inches sticking out of the surface. Fossil was today more abundant than elsewhere on the route.

While chamois was abundant, and probably feeding our flock of Audubon's Thrushes was seen. About half a mile west of Dragon Summit was a single little pond (perhaps an intermittent) was seen. It was called Lytle and returning on our telegraph pole after stopping until it got tired of keeping ahead of me and flew off toward a dune in a brush. The only one seen today.

Hollaid to Railroad and cut several brush which obstructed our march by several miles. Major McMillan took a string table and made all made bridges by a dozen miles. Accordingly, I got to Benson several times ahead of the troops without as much, as I lived along the way.

Benson is a mining town, little in size than Globe. Lytle very busy beller tonight of the summer. The buildings were filled with in bazaars, full length, the Rio San Pedro flows through the town. A Roadrunner and California Thrasher were the only birds of interest seen along it. Several very handsome Pima Indian girls visited our camp. They made faces at all of the men who attempted to converse with them. Their hands, feet, arms and legs are handsomely formed. They were either short in stature and broad and muscular.

The colored soldiers went over a town and hosted and sang all night. Distance marched 20 miles.

May 4th

Marched to Mountain Spring. Mile. The first two miles from Benson, when we left the railroad, was in the valley of the San Pedro, above it after the flat. When ascending, a number of trees were seen, but nothing new. The slope is dotted with pinyon trees and other vegetation in which saw-tails, arrows, track and several species of birds were seen. On the rolling plateau, broken by deep gullies, was no shrubbery, but good grass in which were large mounds of the Sunflower, under which Mexican Shore Pears habitually sit to sing their love songs and, probably also to bear sweet fruits. There I heard Centurumque passimque, heralded bringing its insect-like ditty. After crossing the railroad we came to oxbow-like areas of marshy land, many of them 25 to 30 feet high, in which were found egg-like nests, complete nests of Torrejones rectifrons. A Roadrunner was found in a mesquite 4½ feet above the ground. It contained two fresh eggs. An other nest was found in a mesquite 1½ feet from the ground. A third was six feet from the ground. All of them looked about like a average nests of the American wild, with the addition of a little grass, stone of plants, and—cow manure from keros. Near Mountain Spring I seemed to mark fresh eggs of the Mourning Doves from a nest in a box elder tree. At Mountain Spring a clump of 2 eggs of Phainopepla natter was taken from a willow tree. The web bird was sitting on the nest when it was discovered.

A large flock of Turkey Buzzards roost at Mountain Spring when they are going to roost in the large cottonwoods. At dusk I shot a bat when they are roosting and came illuminating over the cottonwood-tops in the twilight with weird effect, their wings flying...
The air was a resounding sound like a summer's breeze. White-winged doves (Chrysolophus lucidus) were vocalize melodiously in every cottonwood, and numero doves kept chirring in the stream. Their singing brought me to life and they offered to look for the night long before the morning. Roses had once, chime occasionally until dusk after which they were quiet, while yet the morning sound was whistling through the air. In large numbers along the stream, most of which hundreds were still humming with a few voices of our tent. They rowed in the cottonwoods, yellow and roseate, over the river.

A new ford (Spring section) was found on the stream a few miles from Mountain Spring. In these cottonwoods. Number of the yellow-headed Jack and Cactus Wren were seen. Nothing else but Cottonwood. The beautiful White-winged Dove was made a special effort of search on this last but, excepting a single one seen at Fort Verde last summer, none seen until today (see note). As I sat at dinner with the Captian, beneath the spreading arms of a huge Cottonwood, the eyes of some medals that he had noticed in the cottonwoods about our camp before I arrived, I glanced up into the tree and saw a White-winged Dove settle in the trunk, above us, and begin its Robinhood cooing. Dozens of them were seen before we concluded the meal, after which I took up my gun and quietly had three of the beautiful birds at my feet, admiring their sublime color. When eating, the doves, they flapped of their tails with a broadening movement. The air quite still, preferring to attack concealment in the foliage to flight; and its appearance is perfectly gentle color, quiet, and beautiful.

Return the point where on trail crosses A.

Railroad and Mountain Spring, of course and a Box Tortoise Terrapin. Soldiers had encamped with a carbine loft. Not wanting any this perception I strained and prepared the afternoon. Jude told that they are found of rocky cliffs along the road and very infrequent some of the officers, that this is because they are attracted by the musical sound produced by the singing metal when trampled are digging even they at a distance of several miles, but the more parallel reason for their occurrence along the track in the direction of travel which the latter offers, the track doubtless from an efficient barrier to them and causing them to seek to live to east of the woods.

May 5th, 1862.

Marched 18 miles to Fort Powell, A.D. at 2 o'clock and breakfast early, and then set out to explore the Little Stream at Mountain Spring. Which I had not looked for an opportunity of doing. As soon as my things were packed I left the stream, among the Cottonwoods, box elders, walnut and all. The aspect of the country is in all this region, especially the hills along the stream, beyond which the colorier, longer and in shade, that of the last hill of yesterday, March, has changed much since we passed there by.
The leaves on the mesquite and bitter trees, and the cottonwoods, which were thin in color, lent an esoteric charm to the country, covering the ground, flat. The breeze was bare and succulent. As the sun set, the walls of the stream were glorious growing upon the trees. The cottonwoods were enormous, but now so long as that on the Bank. It was measured 34 feet in height, four feet above the ground. White-winged Doves and wood thrushes in the cottonwoods, singing their harmonious notes, set the birds singing in the woods, too loudly. Several notes of Voice Turkeys were heard. The sun was setting to calm, and the sun set, which it contained more than two thousand for preservation. Perched upon a big cypress top was a beautiful new hummingbird (Chrysaor hortulanus) which was fortunate, peculiate. A nest of fresh cut was attached with the nest built was taken near by, from a spruce tree. Vermillion Flycatchers were black and yellow, known to the geniuses, showing their rich plumage to advantage. The blue jay, blue jay, and solved each other, and displayed their usual acrobats of voice and acrobatic feats. Gila and Desert Wood Peckers, Black-bellied, Killdeer, and Squirrel Buzzards were very abundant, as were many other birds. It was able to hunt. It was long before we had investigate the spot to my satisfaction. In leaving the place, some trees formed of Point Chico were marked with the Checkout Fields being the last, mixed with the rare cut in the ground, yellow clover, privet, and Santa Fe and Edgeworth, arbor vitae, and cornel wood (Vernonia splendens) briar and flowers also. Lizards and New Mexico Javelina. 

I also found a trail to-day, and shot the female on the wing, but did not find time to shoot it and only observed the skull. A number of White-winged Doves were seen about the place. There are some Mexican candles near the place and doublet leaves, although I did not find them.

A nest of Geospiza Californica (Burnt)
was built in a large, round-octagonal, red-flowered cactus, beside an old nest of the same species, which contained five young covered with red-colored quills like those of young cactuses.

A Scott's Oriole nest was found suspended beneath the dependent leaves of a large and tall dogwood, built of the thick virescent threads of this plant, made with cottony felt—an exquisitely fine nest. It was covered with the down of the nest, which concealed the eggs, which consisted:

One whitish egg of Brittle toracic calameus (Red-tail) was hatched from a nest in a mesquite tree, 15 feet from the ground, built of threads of stick, lined with some grass and weed-stalks. One cavity, concealed.

May 6th.

Our camp at Rillito Peak near Fort Lowell. Rode to Tucson with Capt. Baldwin and Dr. Hopkins in the morning. In the little park through which flows the Santa Cruz River in the center of town, Jose Gomez Tazzaferri.

Small fruits grew abundant and cheap in Tucson. Spent one afternoon in my tent painting official papers and sketching cactuses. Scott's Tanager, often quite numerous and frequently alighted upon live any limb or cottomwood tree, against the red rock of Mount Charleston. He showed me a beautiful male that I shot at the fence of San Xavier, so

May 7th.

Marched 25 miles to Rillito Station. After packing my Indian, I made a hasty examination of the Rillito oil, the activity of which spread great excitement with an abundance of oil wells. To give credit and cash, were the principal items. They weregetting with good Romeo in full bloom and fragrant. Benson was the beautiful and fragrant Caleb and Elders also in bloom. The bed of the stream is broad and sandy, the water channel narrow and tortuous. The ground was hard and white. The Coopers' Tanagers (Passerina lactea scopari) settle in the same bushes as the Red fork, and do not go about in pairs at the same rate in a willow. They be almost to perfection to cottomwoods. They flock to stock in a log situation or in the branches of a dead branch, or does Papagoa Mexicanus. A couple of females were taken in addition to the bear, but not escaped, having been slightly wounded.

General Arnevedt sent for me, and I expected some unsatisfactory demonstration but he shook me by the hand and offered to serve me with his guidon headquarters and to attempt to save transportation for my effects down from Whittle. 

In order controlling one to ride with the wagon train for several hundred miles. He is evidently a force of arms against him.

Road Runners are numerous about Lowell, the
May 8th

Marched 15 miles to Red Rock. The vegetation, with grass and sagebrush. Mesquite and Giant Cactus. The smaller cacti were abundant. West of the Black-Capped Chickadee (Poecile atricapillus) was found in the grove of a grassland and the East (B) and Female妥善 (No. 994) heard with mat. Families of Santa Fe and Pumar's Thrush were everywhere, even as were those of the Earless Worm, Black-Capped Chickadee and Yellow-fronted Tit. The Mexican Towhee's musical call notes was more abundant than I ever heard elsewhere on the trail. At noon the two were seen running together, and T killed two adults at one shot. I brought two of the great grasshoppers to carry on any saddle (I added) but they found their way to the main and kept the birds at the females. A number of these Towhees were shot, both young and old. Forgotten and having time to live none of them. I gave some of them to a soldier who promised to keep the birds for me but neglected to do so. When running they look high in great numbers of hooks of hook and are very much larger than their European. While their colors never at once to distinguish them at any distance. Many of them are very shy, running long before you can get within rifle range, while others are as tame as the Common Jack. The soldier killed dozens of them on the March.

When about 5 miles from Red Rock, I saw a very large nest in an enormous Giant Cactus, and upon a bird. Having seen a number of these nests in cacti, I was curious to discover the kind that builds them. Managing to get around behind the large branches of the cactus, I crept up to within a few yards of the nest, and shot the

The quick brown fox jumped over the lazy dog.
old Hawk (ستر white-tailed columns). She was too
feathered, especially in the old feathers of the
tail; but a couple of young ones about half
grown out were much darker. A colored soldier
came up and asked him if he thought there was
going thing in the next. He replied, "Don't know, but I reckon don't;" and then instead of him
would mind climbing up to the nest, extending the
question as a piece of pleasure. The next was
an enormous pile of twigs in the axil of two huge
arms of the Great Eosarea. The trunk was at
large around as a hoghead; the nest 15 feet from
the ground; and the Schwartz armed with Long Aeneis.
I asked, as a baby. In my astonishment the answer
was, Clinecock, and asked me to give him a boat's label.
I did hastily, enabling him to thrust his fingers
into an inner woodpecker's hole and stand himself
all to the lowest branch, in which was the nest, much
gave him a hand and enabled him to climb upon
the branches of branches and reach the nest
on three down the rising edge in succession,
and afterwards an added egg not much larger
than a thimble, considerably elongated and nearly
equally rounded at the two ends. It could have been
blown unmeaningly, but seemed to be accidentally
brushed before I reached them. The young birds
at about a day old and one of them lived several days
before I found time to kill and skin it.

The female hawk was carried along for
eral dark, but I never found either to it.
It was very likely, probably due to fading as two
ew-tail feathers were quite dark red, but I
remember noting that the tail was flame
and it you have seen the Cape Vincent
Gree Red-tail.

An Antilope (fawn) we shot by a soldier in the town.

May 9th
Marched 14 miles to Picacho Station, Arizona.
A number of immature specimens of Black-cockatoo
Concerted good weather and the old ones were abundant.
All of any notice of Plumas, Black Cockatoo (Platynotus
Plumbeus) probably related to females or young of
This and the Quicksand Fork, the Branch, a Branch, A Branch, a Branch
and Laramie had some characteristic places.

The Seated Hawk (Callidryas squamata) was shot
by Mr. Stephens near Picacho Station. Thinking that
the sleeping place of Picacho Peak would be a good locality
for them, I hunted faithfully in spite of the inclement
heat. In a pass behind the peak I was informed that
there were bound there as well as many other rare
and valuable species; but I had not time to reach
the spot, and some notion of trees any where west
of the region between Mountain Spring and Fort Hall
where they are abundant.

At Fort Lowell, on April 6th, I heard a note (and
so did to Clements) as much like that of Circus
virginianus that not he liked the locality very
and to find Callidryas squamata. Since then I have
been plenty of Seated Hawk and believe that it has
no such note, and now believe that it was
Circus cyaneus. On the peak, there at the
foot of Picacho Peak, were some Heaven Nightjar
(Chordeiles acutipennis luciferus), a specimen of which
was secured. White-shouldered Doves were numerous,
and a Chemehuevi was shot upon the top of a pole
when it sat and seemed to eat green in the midst
of a patch of white flowers. A beautiful growth
of blooming yate-circa or green-barked acacia
A young Wallcreeper Thrice (No 4005 5 in.) was also preserved. This was the first spring of the year seen and was fully feathered although the quills were not grown out. The fall Woodpigeon appears near the spring later in the season. They were heard in Wallcreeper Squadron all the way from Mountain Springs to Bumblebee, but none were seen or heard, as none of the Quail Cacti were cut open for the purpose of seeing them, none were blown or dried up. Many young slippers were seen or going from the place to Big Bug when I saw and shot the last Wallcreeper. A great search for full-size Thrashers has failed to discover.

May 10th

We shot 19 miles. The Casa Grande, Arizona. Several immature Enders's Thrashers have been shot, none at a little distance, supposing they might be potted Thrashers, but none were seen. Although some were seen when Canevate Trees at a distance and were anticipated of being photographed without helium, but were too shy to be properly identified. Specimens of Colaptes ornatus were shot. One a Quail, Vigilant near the Sourwood on which he is most. In some large spreading mesquite forming a compact group, and closed to them tall Sourwood and a family of Mexican Screa Trees (Scops acee mexicani) sitting separate, after the branches drawn up to their full height and forming our nanphotonic tannic hills. They were part from the tree but too strong an end to be captured, so 1 shot a couple and watched them take.

In another large spanning mesquite tree I saw a symptomatic Vagrant (E. katherinae [perognomum]) sleeping quietly from dawn to dusk and shooting. It was an odd specimen from breathing changes,
Marched 26 miles to Mariscos, over a level country, broken by deep arroyos or places. A short distance from Mariscos, I saw at a little distance what appeared to be some white rays on a mesquite bush, but rode carefully out to within a few yards of them, when two beauties, Little White Egrets (Egretta canicollis), flew away before I could load my gun. I proceeded to stalk one after the other, and when the evening was drawing on, put the other one in a small, deep, dry, arroyo or place for cover. I got a very poor shot of them, and could not see at a distance of several miles. I flew somewhat in the direction of where I was going, as I could see by the moonlight from the command. At length I gave up the chase, having arrived in a thick, magnificent mesquite timber, covered with acacia, mescal, agaves, and standing with the sunble of birds. White-tailed doves were abundant. This is the supposed underground course of the Santa Cruz River. I followed it nearly to Mariscos. Soon after I shot a beautiful specimen of the all-white egrets (Egretta thula). Swans (With, Whelps—Mesquite), silhouetted on the mescal, made enchanting music. When near the Santa Cruz River, I shot a young bull deer two years, La Barita, Placiddles, and near the same yaks. What a hair, and positively identified and secured. Their next couple and three flesh eggs. The female was shot from the nest (Nov. 9, 1815). They were observed in the brush. I then examined the nest and afterwards concealed myself under a neighboring mesquite in a position that was generally supported on account of the turning of the wind and landscape. The shade of the female kept me aware of her whereabouts, and at length, when I was almost gotten, she flew to the mesquite and almost immediately took her place upon a branch. A chirping call from one quickly brought her to the top of the brush, when I shot her. With the shade the chase was different. It required a close of an hour to secure her. He would certainly have killed me if not for his previems in returning the peet as often as lost sight of. His flight was often long, among the bushes and mesquites so lowing that when opening upward into a broad, was distinctly delivered. No absolutely perfect Willy or "qu'il" also served to help track it. At length a long wing-stalk broke its way, and then I had a choice from the ground, shooting at me. The vicinity in running and hiding among the scattered yuccas and other grasses was admirable, but I at length took it, and was compelled to be alone, where the softening sand completely exhausted, with every artery at its greatest tension and bleeding heart. I pecived my inclination as soon as able, and returned the yuccas. The first White Egrets were seen today. Certain indications of White-tailed Doves were memorials. A heron was shot at the supposed bed of the Santa Cruz. In the grove of large mesquites six miles from Mariscos with many Pinus variegata (Pinus edulis), whose gorgeous hue of red-yellow and black glimmered in and out of the mesquite forest on which numbers of White-winged Doves were showing. A family of Mariscos Indians were encamped beneath the
file, and were crossing their Summer when I passed by. A few Quarters' Earnings were then between San Ganges and Sweet Water. Post Sinee (Serraphidus Serraphidus tecumseh) were seen as constants, their existence being almost a casual matter, more by the presence of their burrows and their soft, white, woolly fur, which will be hard to look for in vain. The three species at hand (E. s. southerns, E. s. californianus, E. s. californicus) were represented, and three, together with one or two species (E. s. Knausiana) and the only quadruped seen, the Western Poodle, Intermediate White-tailed Jackass, Common Coo, Black-Bellied Starling, Pigeon-tailed Thrasher, Swainson's Thrasher, Wilson's Thrasher, Red-tailed Bobwhite, Red-tailed Phlegm, Black-capped Thrush, Yellow-shafted Thrush, Chestnut, Cinnamon, and Black-tailed Bachman, White-winged Snowcock, Western Tanager and the Common Thrush, were the birds seen.

May 12th

Passed 15 miles to San Franck Agency on the San Franck River. Several Local Thrashers were seen, and heard singing; but I did not succeed in shooting any of them or discover their nest. My cat on the back of the cart took one of them and was sure I was not far along on any dry country, and once I shot a Thrasher on a dense mesquite, and killed it for the L. C. Thrasher that flew away when I fired. A Thrasher's nest containing five eggs was found in a mesquite, and secured.

I noticed that the Blackbird lift the narrow edge of a tree and stopped to look at me from behind a bush, when I shot it (July 12th) from my horse, with a good of buckshot. It ran about a little way before it fell. I followed it and came upon it lying dead on the sand. It was covered withзвis, and skull were present.

A Mexican Wolf (Canis latrans magister) was seen, but could not be closely approached. Young Black wolves are shown on the N. Y. Zoological that was pressed. After riding about a mile, I turned off to the right and rode down to a broad, shallow bend of the river, where the tide had turned, the water was clear, the portion of the tide being, but did not draw it advisable to about of our way in examine, on account of the extreme heat and the condition of our horses; but saw foot again and myself tike with the dancers. When I reached the place, and the first appeared at a distance, the water was only said covered with alligators. From were numbers of frogs, surrounded by cat-tails and still water, and as dense as to be unforturable. Smaller Wampum Frogs (Tronagora quadrans) and Redband Turtles (Redband Tronagora) were quite plentiful; and, here two bands of Red-winged Blackbirds (Agelaius phoeniceus) were

The water made the place seem like one of the Eastern marshes. I shot a snake as a sounder of the place, and have learned carefully for nests, but the marsh was so densely grown with cat-tails and plants and so abundantly beggar that I couldn't make much progress on horseback, and when I was constantly in fear of losing my horse and not being able to find my way to the marsh was ten feet deep, which I failed in the difficulty or shot. A small duck bird resembling a Rais or Laughing could make and, in the tall growth, find new and fresh, but could not be secured.
In a mountain region there was a dream or vision of a great flood. Some time afterwards it seemed to have become a reality. The river rose with amazing rapidity, and broke its banks. In a few hours it had become a raging torrent, carrying away all before it. The inhabitants were taken by surprise, and found themselves in, a flood of water, which soon rose to a great height. The inhabitants were driven from their homes, and took refuge on the higher ground. The flood continued to rise, and soon became a vast body of water, which finally overtook the town. The inhabitants were forced to evacuate their homes, and took refuge on the hills. The flood continued to rise, and finally overtook the town. The inhabitants were forced to evacuate their homes, and took refuge on the hills.
Since it is true that which are most abundant and
killed near Mancos, were brave feet north. In
maves or other animals build mounds and enrich
certain areas with the delicious grains. They are
an admirable sustenance for the Natives which I
There are an abundance of the climate when.

May 134.

Marched 14 miles to thirsty Arizona. Early in the
morning I mounted down the Blue River a mile or two
Dozens of Cotton tail Rabbits were the only mammals
seen which, but the tracks and usage of the Black
footed Rabbit and Beavers were found in the lake
and Salt Marshes. Numbers of Long Tailed, Blue
Sparrow, Fog-tailed Larks, Red Tailed Jackers,
Black-capped Chickadee, Yellow Shrike, White
Martins, McCowlers, W., White, Yellow Thrushes,
Squaws, Yellow-birds, Bent Vilas, Heaven Singing,
Green-backed Flockhead, Intermediate W., Ground Squirrels,
Prairie Dogs, Prairie Dogs, Black Shouldered
Woodland, Western Woodcock, Yellow Legged
Jacks, Belted and Yellow-headed Blackbirds, Western
Woodcock, Yellow Birds, Yellow-backed Flockhead,
Western Impolite, Olive-backed Flockhead, Black-headed
Kwamara and Kwamara's also seen in the dense
underbrush of various wood, willow and preference.
Beside the Blue, and in the Cottonwoods along
the acreage in various gardens and grain fields.
Some Rains upon the land were so large that I
could ride within a dozen steps of them.
Kildare, Spotted Bluethroat and Green Geese
were feeding along the Blue; and a flock of
half a dozen or more Greasy Geese flew down
the mountain in wedge form. After chewing a meal
of lambs' and horned collars, I left the Blue and
returned to the front of a

mountain, gradually ascending the only trees
consisting of a few backed acacia, Great Cacti,
and Mesquites in which lingers a few chame.
Great Forests were hewing wood. We found the
bones of great numbers from the Blue to Powell, at
marching towards Texas. The Chiricahua mountains
were much less abundant when we returned over the
north of the route but were very common in the
elevated country after leaving Phoenix, where more
were seen when the ascent over the same country
earlier in the season.

After crossing the foot of the mountain
we found grove of vast beech and forest.
A Great Forest in which were hundreds of White
Woodpecker, Mahler's Flicker and Nut Woodpecker.
The Flicker filled the air with their mournful
Crying and were constantly in the trees flying along
front point to point, extracting in beams or small nod
from the green backed a chest or single short
Grant domes or on the ground. They were
probably breeding, but a host examination of
shrubbery and taller, occuring from fruition.
The trail must passed between two mountains it
was on the left being a foot ridge of the main moun
tain on our right. Here I was placed by the
Phoenix and Mancos stage containing some well-dressed
passenger, who easy my well worn clothing and
somewhat miscellaneous horse equipment and baggage
with contemplus acquaintance. I told him that the
above were only of somewhat larger size and more much
than those seen between Mountain Spring and
the place. I think that one of them would measure
from to the foot in height, but this may be an over-
estimate. One of its branches would extend the any
size of those growing upon the banks about Cumbliss
and New River.
The level plain stretching from the foothills was covered with a tall, round, prairie grass, (Kanaskite or Specta). Quail and ground squirrels were common and Beanties and Pueblos were rather numerous. After a ride that was both monotonous and hot, I reached the cottonwood belt of Salt River, which afforded grateful shade although the reflected heat from the surrounding sand was intolerable. In attempting to follow a Mr. Franklin, my horse missed a quicksand.

After a long search for food, I secured a magnificent adult male, and discovered the nest of the White-winged Dove (Zenaida leucotis) and around the single egg which I confirmed along with the female parent. A clutch of four eggs was taken from the willow thicket bordering the river in the morning.

Road Runners now common here. Several very fine on the river-flat and in the gardens of Mexicans. I saw a Steeple of the Seeded Dove (Scardella remata) in front of a Mexican’s dwelling but did not feel to shoot it, longer as I wanted to observe The Green Heron (Butorides virescens) the only kind of interest seen along the Salt River. These are also a few Killdeer and Spotted Sandpipers. I found one camp pitched south of town where the site of a small-box cemetery in which many recollections had been made.

A clutch of Abid’s Forktail and White-winged Dove eggs were found and hatched. And I cleaned a fine gulfy Woodpecker, the St. Ives Hummingbird, White-winged Dove and Odd-eyed Warbler.

Cactus Baldors and a prunnel of milk during the latter part of the evening and hound-bit territo with thoughts of successful collecting on the River to be fully realized.

March 14th. At Desert Station, A. T.

A sound sleep delayed my start in the morning. A Seeded Dove (Scardella remata) was shot on the side of the road, beside the road, near the town of Phoenix. While I was cleaning it at the Column Office, I then concluded to visit the suburbs of Phoenix on the way and allow the horses to have some time. The Cottonwood was filled with young birds. Groves of mesquite were filled with song and flitting birds. An other Seeded Dove was taken, and in an orchard-like field of mesquite, where the ground was covered with lowland grass, I found the Ground Dove (Cokia leucotis), a very small dove, not exceeding five or six inches in length. The dove was placed on a prominent branch of mesquite, but more common eggs.

These mesquite “orchards” were filled with birds; long as my time was shot, I shot on more of them. Returning to the main road, I found dozens of the long-tailed Seeded Doves on it, and along the adobe bordering it. Some sat in Cottonwoods and uttered a double courting note of delightful music. I shot four more of them, and hunted the cottonwood thickets for their nests and shot of the hundreds of Red-wing Blackbirds, whose notes resonated in every hollow, until found only nests of White-backed and took several sets of their eggs. I might easily have taken more specimens of Seeded Doves, had I not already as many as desired to bring home. Neither this place nor the Ground Doves were found elsewhere on the trip. The White-wing and Returning Doves were also very abundant. Phoenix is a city of Doves, all of the Arizona.
Species of South-western genera bred there in abundance. The genus Band-tailed Pigeon is the only other bird of the family found in Arizona, and it is a bird of the brushy mountain regions.

As we passed over the desert one more, amid the Cacti, scrub oak, greasewood, and mesquite, a farmer of Tohono O'odham (Harquahala reservation Indians) was seen, and the remaining fine Sespea and Amsden's were observed. Palms was the most abundant. Several families of Young Marmots, Hlckers (Callosciurus) were seen on an aline, and a gramium sloughed. A first Yuma Shearwater (Clonurus fraterculus) was seen in the top of a cactus. I caught a fat one of the bee and the thing was so fragrant with lemon that I easily caught it in my hand, and carried it back to our, where it finally dried and was preserved. It did not lag the actuating, and was an agreeable lot of unusual desert birds and animals. There also lizards were much more plentiful than when I passed over the ground before.

May 15th

Marched 22 miles to Falls Ranch on New River, A.S. When we started out from camps, followed a wash, around with dog sand 600, bordered with mesquite shrubbery, in which lived Mockingbirds, Red-winged Blackbird, Black-capped Flycatcher, Killdeer, Common Grackle, White-crowned Sparrow, Red-tailed Hawk, Red-tailed Hawk, Asilus, Caddis fly, Mayfly, Long-tailed Widow, Black-throated Sparrow, Common Shrike, Swainson's Thrush, Black-billed Magpie, Rock Wren, House Wren, Burrowing Owl, White-winged Dove, and Gambel's Quail.

The last named is very abundant in this region. Hundreds of large blackbirds were seen. The Desert Elk and Northern Jackass Hare were abundant and conspicuous by the statement. The Yuma Shearwater were exceedingly abundant, but I took no pains to shoot any. Bargain's Chicken was seen in the brush of the foothills about Hall's ranch on New River. The Shearwater will shortly to within a mile of fall's ranch. Most road-runners were seen, but not many. I secured these specimens of young Marmots, Hlckers, and young Yuma Shearwater. Palms: Trees: Fquid were plentiful. I obtained trees samples in both Hlckers, also a Cannon Tawny, White-winged Dove, and a Black-capped Flycatcher, together near Yuma ranch with its much-finished post. The most abundant cattle was the Arizona Deer (Ezqueoro), and the White Coyote (Canis latrans). A few left over of the Amsden's were seen plentiful in the Black hills of Greasewood between Desert well and New River. Several Mule Deer, Mockingbird, Martin Hawk (Furnarius), Owls, Harriets, Raven, Ash-throated and Sego Flycatchers, Black-crowned Nightingale, Myr, Night-hawk, Ezen Scolopeta, Black-headed, Sparrow Hawk, Red-tailed, and White-winged Dove were seen at various places. The great abundance of the Yuma Quail was remarkable. On the banks of New River were the beautiful Desert Canyons, Vermilion Flycatchers, Rock Wren, House Wren, Burrowing Owl, Black-crowned, Black-tailed, White-winged Dove and Williwaw.

Weaving Kangaroo was ever seen throughout the march. New River was the quiet stream seen before. One plant was, a little, which bedfell to 2 days, peas. I presented it to Chagin on the evening before.
May 16th.

Marched 83 miles to Buildings's ranch on the Agua
River, about 7 miles from the place where I
left the trail and explored New River. After what I
found a water hole, I found a nest containing four
young of a large bird of prey, which was
neatly built in the cliff. I found a large bird of prey,
which was neatly built in the cliff.
I centered the syringe full, and was amazed to see myself away from its attractions until the flapping wings far apart over was the time it spent. A mated a wood thrush, Zoothera dauma, which was spotless and has only been detected within this territory and secured a fragment. A mile below Cielito's N. stream became a broad, shallow, rushing over a bed of large, boulder-strewn bedrock, the cold, clear, and rushing waters that rush over the rocks. Here, in the wake of Lewis close below the fall of the main stream.

A gorgeous cardinal had been seen near by, and its nest discovered after a long search and its partnership to death and carried off along with the nest and three eggs. The male was too strong to detach.

A female, one-tailed hawk (Buteo cinnamomeus) was shot at the flour, screaming at me, and the nest was found in a cottonwood near by. I fired and shot, and flew away. Although keen about a spotline, it did not return although I found several nests in the vicinity and not another. I cleared with nest motion to the nest which contained two eggs, which together with the nest were desecrated on 19th, 28 to 41.

Three eggs are not absolutely free from suspicion of being these of Verdin, a small antelope, as the parent keen to keep the nest were not shot; but it certainly is a black hawk having a white-tailed tail. The eggs are surely larger and different, and more to be reassured on May 24th. The kind that were carried the Butler. This stream contained leaves and gashes.
White-winged Doves were numerous in the place. They make a flapping and rushing noise in flight. The notes are "click-to, click-to" (four notes, a two-syllable note, again with force and guttural quality.) This is distinguishing feature of the bird. The males and females congregate in flocks, sometimes aggregating in as large a flock as the desert grasses allow. They lay on the mesquite and owls in flowers when the buds first open, to get some succulent parts of the plants, as indicated by the thrushes and the magpies. The females, when they are caught, are highly admired by the people of the town.

Chains of the White-winged Doves, in the vicinity of the town, are highly regarded. They are often seen flitting about the town, and are considered a great nuisance. The males are sometimes heard uttering their peculiar notes, which are often heard in the early morning hours.

Miles 16 miles to Cottonwood Station, A. I.

Along the way, we found a number of Calloscyphus plants, which have been described as the last of the species. These plants are also seen here. White-winged Doves were also present before we left the garden and saw them approaching the mountains, and a young Woodhouse's Thrasher was seen in the last shrubs that were left in the garden. A couple of nests of the Woodhouse's Thrasher were spotted, and one of the nests contained young thrashers. The nests were found in the garden, containing four fresh eggs. No other Woodhouse's Thrashers were seen, although some were seen in the vicinity.

The Black Canyon, a noted landmark, was seen in the distance. The mountains were covered with snow, and the air was cold. The mountains were a great barrier to the traveler, and the road was rough and difficult.

May 16th.
A Levant, some Mule Deer, Harriers, Signalcranes, Rusty-Mountain Finch, Slaty-Crowned Rosy-Finch, Northern Jackal and Northern Bleat Plover were the Mammals noted.

We left the Escondido (Green geese) behind when we began to ascend the mountains as noted before. Before we met a Malherbe's Thrasher of the year out of the beach and found the nest of the Coati. Only in the same locality, I found the Malherbe's Thrasher as far as I could see, but Kemp's Long-tailed Sparrow was found as far as the summit.

Before descending to Encinitas, Malherbe's Thrasher turned up again at Big Bug Creek where there are no aboriginal or other arborous Coatis. No other Thrashers were seen to-day or subsequently.

A nest of Senecio Carden was taken upon a cliff in Big Rock as it is a cliff—the first Coatis seen in such a situation.

May 19th

Marched 26 miles to Evans Ranch on the Escondido. After passing a few miles we came to a hill from Cottonwoots and other trees of Big Bug Creek, where I left Daisy and followed the stream toward a gully. It is a beautiful mountain stream, bordered by Cottonwoots, willows, Walnut, oak, and grape-woods, with a large species of the wildflower, in which I killed a great Malherbe's Thrasher, from a family of springing of the year with their young in the belly. I removed the Thrasher. There were a number of Kittens along the path in a nearby flower-bed. Rough-winged Swallows were building in the banks. I took eggs of the Least Vireo.

Morning dear and a cut of 2 eggs of Harleypip, which was built in an open situation. Succeeded in a prose-wire. All of the eggs were broken later in the day. Together with other more valuable ones. A pair of San Diego cardinals were found inside the creek, and both were seen to and also their nest containing one egg, which feet of eggs was most broken when the nest was deserted. Lurie Northfieder were extremely in the cottonwoots and they were fasting their last crop. The Long-tailed Squirrel (Xenarchus griseus) was abundant. One ran up the bank towards me and stopped when it came near, I analyzed with her. My Horse had run away and left me near Lurie the road and I had some trouble in finding her.

The nest of a Chaffarock (Kentucky Californiana) was found in an isolated scrub oak, planted on a slope side of a hill. It contained 3 fresh eggs, one of which was afterward broken while my horse ran away.

Some Northfieder were again found among the Cottonwoots of the Aqueduct, on the bank of which I shot a Road-runner and had an exciting chase before I caught it. Taking a wrong fork of the road, I again came to the Aqueduct. There are some magnificent people at a well, where I rested and be warmed for half an hour, and then pursued my way. An other nest of Harleypip (colubris) was

held in a brush fork, but like the first put they were all afterward broken, when my mass wonder of "took several" a wide gape at the creek and break at a number again, which I had to follow for some distance before I could get on the side of the Creek. The only thing of interest found in this open place was a "nest" or at least two eggs in a hollowed-out out in the base ground.
of the Morning Dove (Zenaida carolinensis) from
the plant available when my time was exa
using, and showed, “Daisy” and myself a treat.
A rabbit of Ash Creek were at first a
d spark of cattail and rocky fields in which were
plants of “Rock Sparrow” (Erethisma pacificum)
and Tule Alighting (Zenaida carolinensis). Then
a fine array of cattail and grass was Sprat, and more
abundantly the west and saw the two first
eggs, which were larger and more handsomely
colored than any others that I have seen; but they
were boiled before I wrote any description and
took any measurements. Another nest was
soon found in another large cattail, the
plant on which it stood. Soon after breakfasting
and when I had although the doors of horse
had made their way. On my way to
with them. It was very hot, and I was glad
from much walking, but was allowed to keep in
light of my frequent visits, who kicked my heel to
a rabbit, after our 100-mile trip and exposure
call of the wild horses. After ten or twelve hours
I had walked and much musing I often
repeated, then I’m a morning co-ming for my own
with the end and soon captured him, and found out
a half dozen of the eggs which I had taken polly
and turned towards Lake named by the black
egg in the pocket of my saddle, in which I
had carried eggs safely through the valley
The nest was again printed and a couple of
half-grown Yellow Red-tails, one of which
I noticed and preserved. I did not wish any
until dark, much disgusted with Daisy’s performance
that delayed me so long and smashed most of the
eggs.

The Willows were not eligible for permanent
at Mill Creek, Common I’d see if in fact
Scarab, (yokes of both Harries, 22), brilliant orange at
California I was, the Wood rats and rifleman Pocket I was
and Coyote.

May 20th

Marched 11 miles to Short Verde, Arizona.
I rose early, breakfasted hastily and then galloped
“Daisy” by the head of Peter Watson, near which
place I saw the only Black-chinned Sparrow
(Grallina angulata) seen on the trip. Black-hand
Protects were abundant, and they were in the
hills near Bisbee. District of Mescal has seen from
Arizcota. Lead-colored crows, Denver Hummingbirds
and Taunton owls were seen the last
day; and it is to be remembered that the last was
only seen on the two first and last days of this
last 30 miles the only seen on the first
day and last two days of the trip. I was
Bisbee, for I saw a very pretty family of young
one going on by her parent yesterday.
I did not load my cartridges for to day is shooting
as I was anxious to get up the first as soon as
possible and see the family after our separation
as I only stayed long enough in the Carson to pluck
a big bouquet of wild flowers for Mrs. Wavem
Indian juncus, Yellow lilies, plants, Red spruce
and large pine—and gathered into the front of
mine overlock on my white Oake, Daisy, who carried
our 12 miles to Byron and took with me a
kind of toe sack, but we were both glad to get in.
The Post Ambulance had been sent out for Mrs.
Owens whom I found at our house on my
arrival, and Captain Baldwin soon joined
me, with Fred. Smith [skilled at battle of Santiago, Cuba, 1898]
Mr. collections were found to be in excellent
condition. Not even an egg was broken on the entire
trip, and nothing was missing.
The collections consisted of
29 Mammals,
236 Birds,
186 Birds' eggs
7 Nuts
2 Serpents
All of the above were dry, perfect; there being
no alcohol, nor means of transportation for alcohol.
A report upon the Mammals and Birds was
sent to the Surgeon General, U. S. Army, through
the Medical Director of the Department of Arizona, and
deposited in the library of the Army Medical Museum.

WAR DEPARTMENT,
Surgeon General's Office,
Washington, D. C., July 16th, 1885.

Assistant Surgeon E. A. Macarths,
United States Army,
Fort Verde, A. T.

Sir:
The Surgeon General directs me to
inform you of the receipt of your preliminary
report upon some of the vertebrate animals
observed by you while in the field from
March to May 1885. This report has been
referred to the Curator of the Army Medical
Museum from whom you will receive further
acknowledgment and advice.

Very Respectfully,
Your obedient servant,
Benjamin F. Pope
Assistant Surgeon, U. S. Army.
Army Medical Museum and Library, S. G. Office,
509 to 515 TENTH STREET, N. W.,

Washington D. C., July 17th, 1885

Dr. Edgar A. Meade
Assistant Surgeon U.S. Army.

Dear Sir:

Your communication of June 29, 1885, transmitting to the Surgeon General a preliminary report on the zoology of parts of Arizona and New Mexico, has been forwarded to this Division. I have examined it with interest and pleasure, and have no doubt the complete report will be a valuable addition to our information with regard to the natural history of these localities.

I note that you state that the collections are intended to be presented to the American Museum of Natural History. In view of the fact that we are endeavoring to make in this Museum a complete collection of specimens in comparative Anatomy to
illustrate the development and morphology of man, and of the fact that all specimens of comparative anatomy and geology are of value to the Museums, either to be placed on it directly or to be used as a means of exchange to obtain specimens having more directly on its special purposes, it is hoped that medical officers of the army in making collections will give the Museums the first choice of specimens which they may collect.

The desire to obtain a series of preparations which shall illustrate, not merely the skeleton, but also the development and evolution of various organs, and soft parts of the animal body, and, for this purpose, specimens preserved in alcohol are essential. As an indication of what is wanted, I enclose herewith a memorandum of some things which are specially desired, and which I hope you may, in fact, at least, find it possible to obtain for us.

Hoping to hear from you on this subject,

Yours very sincerely,

John S. Billings.

Director U.S. Army Medical Museums.
Note on a Trip from Fort Verde, Arizona, to Flagstaff, Arizona, Made Between June 18th and 24th, 1886.

This trip was made for the purpose of meeting my Mother, who was coming from the East. I left Fort Verde to go to Flagstaff.
The Chief Quartermaster sent me an ambulance and excellent four-mule team from Whipple Barracks, and, as the team reached Verde early on the morning of June 18th, I concluded to move out as far as Whipple Barracks station, now deserted but formerly a station on the Star Route stage line from Prescott, Arizona, to Santa Fe, New Mexico. That evening, Mr. Daniel Robinson politely volunteered to accompany me on the trip for the pleasure of the drive. We found water in Blackhead Creek a little way below the point at which the road crosses it, but the stream had no water. We encamped at dark beside the well at the old station, and, after baking some bread in the Dutch oven and cooking a meal, retired. Mockingbirds, chats, and many other birds were heard in the evening, also one or two Poor-Wills.

At daylight, a couple of Skunks (Cooncoitas majoriti) were seen running about our camp, seeking an inventory of our effects. I ran back to find, with their snout from which my Thoughtful Companion had with commendable prudence removed both the cartridges, and was therefore unable to shoot the Skunks although I swaggered both agencies.

We broke camp at sunrise, after breakfasting on a young Jack Rabbit which I shot through the head with my .44 rifle. These Rabbits are excellent eating notwithstanding the general opinion that they are filled with animal parasites and almost unfit for food.

We ascended a steep hill about a mile in length, and then began a gradual ascent through a sparse growth of red clover, which were studded with clumps of blue pimpernel, wildflowers in bloom, and some bear grass and Spanish broom. Nests of Mr. Species (P. tarsius of ubiquitous species) were exceedingly abundant. After riding about six miles, I felt walked a short distance to the edge of a deep canyon, which our road headed at Rattlesnake Tanks. The view of this canyon is fine, and our position commanded that of the entrance to the Red Rock Country in the direction of Oak Creek.

Sandable Dailies were abundant, and hundreds of young ones were seen with their parents. After about 25 young quails would be found accompanied by several females, and the even bred also frequently accompanied them. This strengthens the view that I have always entertained that it is quite common for several Sandable Dailies to hatch together, as the number of 1993 (occasion-ally nearly thirty) different color phases exhibited in the same clitch illustrates.

The only birds of special interest were number of White-Tailed Dairies, which were evidently breeding in the adjacent cliffs of the adjacent Canyon and one fine Bossailed Hawk, which flew within a few feet of me when standing at the edge of the canyon.

For the Rattlesnake Tanks, where the Flagstaff road changes from the old Star Route, we ascend rapidly over a rolling country, covered with grass, with patches of cactus and meseral. The
The red sedans are left behind, and we are far more...

...and had the satisfaction of hearing a Dr. Lamont,

...who lives at the camp, who told me behind the door.

The doctor had hunted all day and seen a number of deer and antelope during the day. He tells that they

...where they are not

...than here on the plains.

...nearer one place, a quantity of rose-colored locust shreds were all over the ground, and fragrant. I shot an Abert's Squirrel there with my rifle. I could have obtained some

...more especially with my hand, I carried the shotgun其中包括此项。

...and California Woodpeckers were abundant and fearless tending their nest. Two Coues were seen, which

...and were afterwards found in the same day, pine trees when we returned two days later. One or two

...which I could not identify, but were either Sanae cinnamomeus or S. c. quadrirufescens (=Antinoma cinnamomea Allen).

I returned to camp, fatigued; but, after resting

...explored the area, and stream coming through the park from a canyon about it having its source high up in the hills. Both men and

...and one of the most abundant mice that I have ever seen. I examined a dead one which I found, and intended to shoot a

...in that vicinity, and I should think they usually build their nests in pine trees. The only nest I saw was
placed in a showy tree six feet above the ground. This composed of three twigs, stems of leaves and lining of roots. It contained four (4 eggs) which contained small embryos. The site of these was preserved but the nest was accidentally left behind at Flagstaff.

The banks and vicinage of streams have large beds of iris or Swan-de-Luce. In the little cove or through which the stream flows were found the only swan trees seen on the trip. They were plastered with hanging yucca roots. The wild rose, iris, honeysuckle and white clover were growing intermingled.

I shot a long-eared Jay in a pine tree. Its plumage was very much spotted and covered with gray. Its throat and nearly face. Many birds were seen in the pine groves, and a beautiful red-faced Quaker was flushed from its nest among the side of the bank, close to the trunk of a large pine. It alighted in the lower branches of a small pine, sitting on a sharp, hard stump. The bird was so fearless and the face I was in as hard to get out of that I feared I could not secure the specimen without mutilations. I fired a charge of 100 my riot and Covers six inches to one side of the bird and did not hit it at all. Then it flew a little further off and the same experiment was repeated with the same result. Then it flew to the lower limits of a distant pine, and hopped aimlessly about fumbling its single song until shot. Its red face, black cap, gray back and white rump, suggested to my mind a diminutive of the European Bullfinch (Pyrrhula europaea).

After securing the old bird, which was a new species to me, I continued my progress toward the ground. An old nest was discovered after close search, and I was about to conclude that it belonged to my bird and was not yet completed when I saw a little opening among the leaves and pine needles, and, on peering some blooming honeysuckle, ice and moss. I disturbed the nest, all artfully concealed as it was, pretty constructed and perfectly located. In it were found eggs which contained small embryos. dried while easily removed. The shells were thick and hard.

A small, plumed, serpent was seen beside the stream in a bush, that was new to me, but escaped before I could capture it. Here I first saw a tall plant resembling Veratrum viride, six feet high, which was atrogantly seen occasionally by the rooks and Flagstaff. After gathering a few new plants and pressing them, I returned to Flagstaff again with new birds and two new nests and eggs. In the twilight I shot a small fat of a dark purple color that was also new to me; but it was so bailfully odd that I was unable to preserve the specimen.

June 27th. — The drive to Flagstaff through the oak parks and pine timber was delightful. We arose from a refreshing sleep, well covered with blankets notwithstanding the intensely hot weather, down below us in the Verde Valley, where the maximum temperature at the lower station on this trip averaged 95 40 in the shade. Starting early we reached Flagstaff between ten and eleven o'clock in the morning. Songs of the familiar birds were heard as we rode along. Among the more conspicuous vocalists was the Phoebe, a bird which always obtains my first hearing. The gorgeous Violet-green Swallow was one of the most conspicuous and the Siskins and Hummers were constantly audible, and in the Bluebird we saw a curious bird that I first heard the song of the Red-tailed Tanager, and many other (mountain side, most of
which I was unable to identify while bowling swiftly along in our ambulance, I duly shooting a „decoy ball, to have a shot at some Squirrel or Brit.

I shot three female Saguaro Chisumunks (Saurops lateralis). Now we feel until we were within a dozen miles of Flagstaff, where a number were seen sitting upon the rocks or logs that had been felled for the sawmill. They are with a high-pitched whistle which is ventriloquial and seems to come from the nearest tree-top. When in reality the animal is at quite a distance and upon the ground. They are larger and less noisy than the Harriaroot Chisumunk. A Light Rock, Mountain, or-tailed Gymnophylax was shot on a log near the road. It was asping young as were all three Saguaro Chisumunks, while I obtained a quantity of milk in the mannaeum, which, by evidence of Lucullus.

Near the Flagstaff Woods in an oven Fed near the camp, I shot a little Woodpecker whose audacity tamped me nothing short of a magnum. I came right up close to it, was feeding into our hands, and out of sight. I wished to try and shoot it without mutilation, which I succeeded in doing. This was a juvenile American Woodpecker. No Holes of any species were seen anywhere in the Large timber in the road.

Soon after leaving Munds Park Place we saw the first Phaethon Principi (Swan-like). Two pairs were Courting and fighting. They chased each other about through the trees and once or twice settled upon the ground. No species appear to be partial to the oak timber in the pine woods.

The wings are of large size and harbored numbers of Bigney and Cauter-chilled Warblers, Louisiana Sandagers, Desert House Wren, Junco, Dark Timmel, Mexican Bluebird, Robins, Idaho-gran

Swallows, California Woodpeckers, Harrow Hawks, Plump-footed Vireos, Pine Finches, Long-tailed Jays, Audubon Warblers, etc., etc.

We pitched an A tent for Mother in a grove of magnificent trees, where Plump-footed Vireos, Lane-

fona Sandagers, Robins, Arizona Blowing Passerine, Arizona Kingbirds (probably the only one), Lane-

Finches, Audubon Warblers, Jays, Woodpeckers, Nuthatches, and many other birds were singing or twittering their usual notes. I heard what I think I had a Bird's Nest, but did not see it.

I spent most of the afternoon in calling about town and Skimming Squirrels. Curious Masthils were numerous at Flagstaff. One was seen 10 miles south of Flagstaff in the pine woods, but that's none.

I regretted having to spend a long time in Flagstaff, as I would undoubtedly have found numbers of off

rots and eggs, treed birds and man's male birds.

Both large and small were abundant in town.

Mother arrived on the train at eleven o'clock, some 3 hours behind time, and went off to the tent to retire and sleep soundly.

June 21st:—We were delayed at Flagstaff to have some work done on our ambulance. We went shooting for an hour. A pair of Robins had built a nest in a small pine, 20 feet high, and were singing near against an Abert's Squirrel which I shot in a very large pine tree. I first saw the Squirrel about the umbred. My attention was attracted by the chime of the Robins. The song of this Squirrel is a squaw, which

Omments were also in a special situation. They coasted little over the towns and into the woods, both with

into which were fairly common. Junco, Jays, Bluebirds, La Sagesse, Jack Finches, Mountain Chickadees, Brown's Blackbirds, Robins, Jay, Wood-

jacker, Nuthatches, Audubon Warblers, Bluejays, King-
birds and Violet-grey Swallows were the most abundant birds. To find resembling Selengea* but little was seen in the pine-tops but was not identified positively. One Escalante Panache was shot. We left Flagstaff at eleven o'clock a.m. and rode to Munds Park where we stopped for lunch. Before reaching that place an Antelope was seen near the road but kept on a ridge before I could get my rifle. I started to stalk him on foot, but could not get within 400 yards although we circled and zigzagged around on for half an hour, so I did not feel at it all.

Violet-grey Swallows were very abundant. Although a few were in the Vinte Valley, their home is undoubtedly in the pine forests of higher altitudes.

At Woodro Ranch, we stopped an hour and watched the soldier at the corral. Horses were found along the stream in the back, and were the only Water-Birds seen on the trip. A small heron was captured there.

We camped for the night at Pine Tanks which were dry, but we had water for cooking and drinking in the corral. The much were watered at Woods. We got to our camp at Pine Tanks at sunset.

June 22nd — A pair of Apache Pigeons was shot at Camp before we were ready to leave. Pine Tanks is on the edge of Pine timber and we were seen descending towards Rattlesnake Tanks. Rabbits, Mockingbirds and White-throated Swifts were seen again seen and after a time the hillside bushes gave place to the cedar with Dow and then oak shrubs and beard-grass with various other shrubs and occasional clumps of Cactus (Placemunla Mammillarea) and above.

At Rattlesnake Tanks, the curious Saltrachus having external gills like the Neobranchus was found. They were only about three or four inches long and were the same that I found in tanks on the Mogollon Mts. on the Apache road.

Upon the rock beside the tanks were some unusual bunches of mammillareae. Paring down through the cactus we found there was great abundance and diversity of Mammillareae. The Pigeons, the young, which were preserved in alcohol, were abundant. Bucking up, metalpa blew in the sunshine. Some two which were preserved in alcohol, Turkey buzzards were numerous along the cliffs, as were Western Red-tail Hawks. Prairie Geese were not seen until we reached Beaver Head. The annual valley hills were seen Menee ris to the east, when we arrived at two o'clock P.M. We found a wooden box, filled with the rose-purple Cactus flowers and after at Pine Tanks, quite fresh when opened at home nine hours later.

List of Mammal seen—
1. Lama labrans — Reared at all camps.
2. Saguana argenteolata — Smaller in the canyon near Mundas' ranch.
3. Saguana argenteolata argenteolata — One was shot at high up the mountain as Flagstaff.
    "It was captured in the vicinity of Flagstaff, where it was very abundant. Seen by us for the first time. We captured four Saguanae all females.
4. Saguana astrodonie collared — Several seen near Beaver Head and Rattlesnake Tanks.
    "It was Chipmunks seen about Flagstaff allow to belong to this race, but just not positively identified. The latter are a Autunima excelsior's Allen.
Eschscholzia angustissima Allen
6. **E. angustissima** quadrivittata. One that we are running up at a fairly near by to the top of the mountain, seemed to me like the specimens described.

7. **E. angustissima** arizonica. Abundant throughout the belt of cedar timber, gradually disappearing higher up through the sparser, rough-barked junipers. We saw no flowers on pine timber but there are probably a few on rocky ridges of not much higher pine forest.

8. **E. angustissima** lobata. - Habit at the same as above.

9. **Eschscholzia americana**. - Only two, one male and one female, seen near Munro's pond, said to be common.

10. **Eschscholzia condensata** montana. - Common on ridges and high ground. Scarce on the open woodland.

11. **Eschscholzia coccinea**. A young plant was found in Mr. Kawanis' hayfield, when we were showing them to his at Flagstaff.

12. **Eschscholzia coccinea** arizonica. The little weed shot at the same point near Flagstaff is the only one I have ever seen or heard of in the Arizona aside from published records. It was a female perfecting young, the seed glands contained a very purplish, foetal liquid which I was unable to get rid of for several days. The specimen was in excellent fix.

13. **Eschscholzia californica** pubens. - The grounds were not so wet after we reached the pine woods.


15. **Eschscholzia californica** var. pygmaea. - Common.

16. **Eschscholzia californica** var. emarginata. - One was shot at Munro's pond. It was badly mutilated and not preserved as yet. - I failed to be able to obtain a perfect specimen, but neglected to do so when returning.

17. **Eschscholzia californica** var. nigricans. - Two on Bear's Head June 19.

Note: Mr. Bill Munsie is an old settler and owns a handsome herd of stock and a fine range. He told me that when he first came into Arizona, many years ago, he found the Billings mining camp and then Mr. P. H. (Corbett [spelled]) in the San Francisco Mine. There were plenty of Elk tracks and more Indians. He did not see any of either. But there was abundant evidence that the hunt was successful.

Dr. Brannan of Flagstaff and his brother, each had a hundred of the Mountain Sheen, obtained near Flagstaff. Mr. A. J. Brannan sent his mounted specimen to the Biennial Exhibition at New Orleans, and had not received it back when I was there. The Dr. sent the specimen East to his mother. I have since seen an Arizona.

**Birds:** The only birds of interest seen below the pine belt were a Sh,r-tailed Hawk (Butto sparrow), and many White-throated Sparrow (Microsifardulae) seen in the Canon de los Cattlinas, and the little house near to the pine timber at Pine Springs.

The following is a complete list of all the birds seen and identified in the pine timber between Pine Springs and Flagstaff:

1. **Equisetis virginica.** - A few on a small stream flowing through a park at Woods, at an elevation of nearly 7,000 feet.

2. **Bacillus macroder.** - Sparsely scattered through the pine timber; most abundant at Flagstaff.

3. **Bacillus sparsus.** - Common in the pine woods, where there is an abundance of pine trees.

4. **Colaptes major.** - Several were seen at Flagstaff and a few were scattered along the road all through the pine woods.
5. Chordeiles virginianus lenzii. — This Nightjacket, when recognized, is instantly by its black sides, which is quite unlike that of the accepter's specimen. The only species I had found hitherto in Arizona. They might easily have been shot, had I know of them.

6. Orthotomus alexandri. — No other Orthotomus species recognized, but I may have seen several others, as Hummers were frequently seen darting about in the pines.

7. Spermophilus herman. — Common everywhere in the pine woods, the only one shot this week, but I think some of these seen were I. vociferus.

8. Spermophilus varius. — Occasional; a few about.


10. Cynomys lateralis macrotis. — Common through the pine-timber country. One shot found at Flagstaff was just finished, probably over second wood. It resembled a Blue Jay (C. caeruleus) and was placed on the lettuce fork of June 25. to 30 feet high.


12. Lepus americanus. — A few seen. It probably breeds in June. One seen at Munn's were in the same tree when we returned two days later, and perhaps had a nest near.

13. Scolopax urus. — Found, especially about chutes, throughout the pine timber. The young were on wing, although I found one nest at the edge of the pine, from which I took four young.


17. Junco variegatus dorsalis. — Common. None were shot, but I think they were sub speciess dorsalis as those found in the neighborhood of Baker's Point are a short time after. I thought there may have been other species to races of Junco stain.


20. Turdus philomelos. — One seen near Munn's ranch, Common at Flagstaff.

21. Turdus pallidus. — The most characteristic species to the pines. This is the Sphyrapicus leucurus. Munn's.

22. Turdus philomelos. — Common, a sweet singer, breeds in tall pines.

23. Turdus philomelos. — Common in the pine timber where they bred.

24. Zetaphegastes. — This bird was seen at Flagstaff in June, but could not be identified.

25. Cardinalis. — The female only seen. I took at Munn's was the only one seen to be identified; but I probably saw others perching in the pines at too great a height to be recognized.


27. Zetaphegastes. — A few seen before leaving Flagstaff. The pines on the road have been filled and left upon the ground in preparation for the new shell. Among the branches of these Drosera gigantea of the forest, the little Pericoma. Zetaphegastes were hopping among about the pines, and after they were abundant. A special was ordered in our return trip.

29. Setia ligusana — Rather abundant.
30. Parus gambelli — Apparently rather scarce.
31. Polysticta caerulea — Rather uncommon.
32. Phylloscopus palmarum — Rather common
   in the plains, especially at Flagstaff, where they
   sing loud and sweet.
33. Dicrurus mexicanus — Abundant everywhere
   through the pine woods.

List of Specimens Collected:

Mammals:
No. 420. Sciurus aberti. fad.
   421. Sciurus aberti. fad.
   422. Sciurus aberti. fad.
   423. Spermophilus prorusus. fad.
   424. Tamias lateralis. fad.
   425. Tamias lateralis. fad.
   426. Tamias lateralis. fad.
   427. Tamias lateralis. fad.
   428. Putorius flavomarginatus. fad. = P. flavomarginatus. var.

Birds:
No. 4903. Cardellinus rubrifrons. fad. with nest and 3 eggs.
   4904. Tachyphonus tricolor. fad.
   4905. Vireosolitanus plumbeus. fad.
   4906. Aegithalos indoraneus. fad.
   4907. Aegithalos platyrhachys. fad.
   4908. Aegithalos ketata. fad.
   4909. Aegithalos ketata. fad.
   4910. Aegithalos ketata. fad.
   4911. Aegithalos ketata. fad.

Reptiles:
1. Anaxigna (at Wood) preserved in alcohol.
2. Sceloporus collinus. - Collar Lizard preserved in alcohol.

Plants: - About 20 species were preserved.
Eggs of 40 Sceloporus aegyptiacolus.
Lepus callotis 16, 65, 66, 67, 68, 71, 77, 114, 118
Lepus texianus 16, 65, 66, 67, 68, 71, 77, 84
Erethizon dorsatus epixanthus
Castor fiber canadensis 122, 139 (letter)
Dipodomys phillipsi ordi 16, 122 (letter), 129
Thomomys talpoides umbrinus 77, 88, 89, 129, 134, 150
Sciurus hudsonius fremonti
Sciurus aberti 143, 147, 149, 154
Sciurus arizonensis
Tamias asiaticus quadrivattatus 143, 147, 150
Tamias dorsalis 48, 59, 62, 77, 136, 143, 149, 149
Tamias harrisi 16, 48, 49, 62, 63, 84, 118, 127, 129, 134, 137
Tamias lateralis 146, 149, 154
Spermophilus gramineus 48, 50, 129, 133, 134, 135, 136, 146, 149, 149
Spermophilus toroteca/ius 16, 53, 54, 62, 72, 75, 77, 87, 88, 92, 93, 94, 95, 98, 100, 108, 118, 136, 137
Cynomys columbia/us 16, 58, 60, 79, 80, 91, 92, 99, 100
Mus decumanus
Mus musculus 150
Dicotyles torquatus
Cervus canadensis 151
Cariacus leucurus crooki et mexicanus
Cariacus macrotis montanus 48, 54, 77, 88, 89, 100, 134, 137, 150
Antilocapra americana 48, 88, 89, 100, 112, 139 (letter), 142, 143, 149, 150
Ovis montana 68, 151
Canis familiaris (Indian Dog)
Long-eared Bat 137, 150
Large Brown Bat
Little Brown Bat 150
Red Bat, and all other spp. 80, 84, 77, 108, 145, 147, 150,
Mammals 1,138.

Sorex

Moles (all spp.)

Felis concolor 16, 133, 139 (litter),

Lynx rufus maculatus

Lynx canadensis (or other species than the above)

Bassariscus astutus

Canis lupus occidentalis

Canis latrans 48, 50, 54, 88, 118, 129, 134, 137, 149,

Vulpes velox 16, 69, 110, 118

Urocyon cinereo-argenteus 149

Gulo luscus

Putorius brasiliensis frenatus 146, 150, 154

Mephitis mephitica 129, 137

Mephitis interrupta

Conepatus mapurito 140

Taxidea americana berlandieri 17, 88, 89, 139 (litter),

Lutra canadensis

Procyon hernandesi 132, 137

Ursus horibilis

Ursus americanus

Neotoma mexicana 17, 88, 89, 122, 129, 134, 137

Hesperomys leucopus sonoriensis

Hesperomys leucopus cromicus

Hesperomys leucogaster torridus

Arvicola (riparia?)

Sigmodon hispidus arizonae

Fiber zibethicus

Lepus sylvaticus muttalli

Lepus sylvaticus arizonae 16, 3, 46, 48, 50, 54, 60, 88, 94, 96, 100, 118, 122, 127, 139, 137, 141, 149, 150.