


40

Handwritten text, possibly a signature or name, which is very faint and difficult to decipher.

Quomptis = Q.



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Bees. 1900

April 1900 to March 1901

Started with 8 colonies
April 1900.

33 swarms

Swarm cost 1700 21

Bee queen 8

Food swarms 4

Ended Honey season

1900 at 28 1901

with 69 colonies of Bees.

Total colonies in 1900 24

Added weak ones 5

Total at end of 1900 69

Honey season at 28, 1901

6, colonies.

Drained Honey season 1900

1125 lbs.

1133 # 1 sections, @ 14 lbs each 991 "

444 # 2 " @ 12 lbs each 333

Grand Total of 2449 lbs.

Season of 1900. April¹⁹⁰⁰ - March¹⁹⁰¹

0. Late hived, April 20 1899
hive gave 93^{no} 1 sections & 16^{no}
sections. Also 10^{1/4} lbs
extracted honey.
1. Late hived March 1, 1899
- gave 30^{no} 1 sections & 19^{no}
sections, also 7^{1/2} lbs extracted
honey. Swarmed 2 times.
2. Oct 11 1899. Gave 42^{no} 1
sections & 20^{no} 2 sections;
also 8^{1/4} lbs of extracted honey.
Swarmed 1 time.
3. April 13 1900. Gave 20^{no} 1
sections & 19^{no} 2 sections,
also 16^{1/4} lbs of extracted
honey. Swarmed 1 time.

9
river

4

April 9 1900. - Saw 8 sections
& 10th section also 19
of honey - earned 2 time.

5

June 1 1900 - saw 290
sections & 10th section
also 18 - be extracted
honey - earned 1 time
Swarm from # 10010 & 2m

6

April 30 1900 at 7.30 & 2m
Swarm from #41
saw 33 sections & 15 ho
sect. saw 18th - of honey
- earned 1 time.

7

June 22 1900 at 1.30 P.M.
Swarm from #13. Saw 1
no. & 2 no. sections and
20th of honey
- earned 1 time.

8 Aug: 5 1900. - I arranged
#25 at 1.15 P.M. Gave 15
No 1 sect. & 3 No 2 sections,
also 18 1/4 lb of honey.

7 Aug: 27 1900. - Gave 9 1/2 lb
of honey. Swarmed 1 time

10 Sept 8 1900. - I arranged
#36 at 11.45 A.M. Gave 4
No 1 sect. And 20 1/2 lb of
honey.

11 May 19 1900 Gave 21 No 1
sect & 25 No 2 sections,
also 12 1/4 lb of honey.

12 Nov 6 1899 Gave 40 No 1
& 11 No 2 sections, also 10 1/2
lb of honey. Swarmed 1
time

- 13 April 5 1900 - Gave 12 No. 1 & 5 No. 2 sections, also 18½ lbs of honey. - swarmed 1 time.
- 14 June 5 1900. - Swarm from #40 at 10 A.M. Gave 9 No. 1 & 14 No. 2 sections, also 22¼ lbs of honey. - swarmed 1 time.
- 15 June 11 1900. - Swarm from #22 at 11 A.M. Gave 9 No. 1 & 10 No. 2 sections, also 22¼ lbs of honey. - swarmed 1 time.
- 16 June 23 1900. - Gave 5¼ lbs of extracted honey.
- 17 Aug. 29 1900. Gave 18 lbs of honey.
- 18 Aug. 31 1900 Gave 6¾ lbs of honey.

- 19 Empty 1900
- 20 May 18 1900. Swarm from #12 at 12 N. Gave 104 No 1 & 2 No 2 sections, also $15\frac{3}{4}$ lbs of honey. Swarmed 1 time.
- 21 Jan. 1 1899. Gave 54 No 1 & 13 No 2 sections also $23\frac{1}{4}$ lbs of honey. Swarmed 1 time
- 22 Apr. 11 1900 - av 34 No 1 & 31 No 2 sections. also 5 lbs of honey. Swarmed 1 time.
- 23 May 20 1900. Swarm from #31 at 10. A. M. Gave 24 No 1 & 14 No 2 sections, also $18\frac{3}{4}$ lbs of honey. Swarmed 1 time.

- 24 June 7 1900. Gave 30 No 1 & also $24\frac{3}{4}$ lbs of honey
- 25 April 27 1900. Gave 30 No 1 & 10 No 2 sections, also $18\frac{1}{2}$ lbs of honey. Swarmed 1 time.
- 26 July 3 1900. Swarm from #3 at 1.45 P.M. Gave 30 No 1 also $24\frac{3}{4}$ lbs of honey.
- 27 July 7 1900. Gave 4 No 1 & 6 No 2 sections, also 24 lbs of honey. Swarmed 1 time.
- 28 July 7 1900 Gave 28 No 1 & 5 No 2 sections, also $28\frac{3}{4}$ lbs of honey.
- 29 Aug 28 1900. Swarm from #27 at 12. W. Gave 3 No 1 set & 3 No 2 sections also 18 lbs of honey.

30 May 28 1900 Gave 33 No 1
& 13 No 2 sections, also $24\frac{1}{2}$
lbs of honey. Swarmed
1 time

31 June 10 1899 Gave 1 No 1
also $9\frac{3}{4}$ lbs of honey
Swarmed 1 time.

32. April 9 1900. Gave 19 No 1
& 9 No 2 sections, also $6\frac{3}{4}$
lb of honey. Swarmed 3
times & the last time be-
came queen-less & united
them with #82. Dec. 15 1900

32.
3
New
Put a hive of bees on stand
Dec 26th 1900. And got 48
lbs of honey out of the tree
from which they came.

Mr. Levi W. Mengel,
Dept. Biology,
Boys High School.
Reading, Pa.

wants specimens of diurnal lepidoptera
and Pyraeidae ² Tameamea, each and
any species of colias you may have.
Will pay cash, or exchange specimens
from Europe, U.S. ~~Canada~~, and Central
and South America.

Dec 13, 1903,

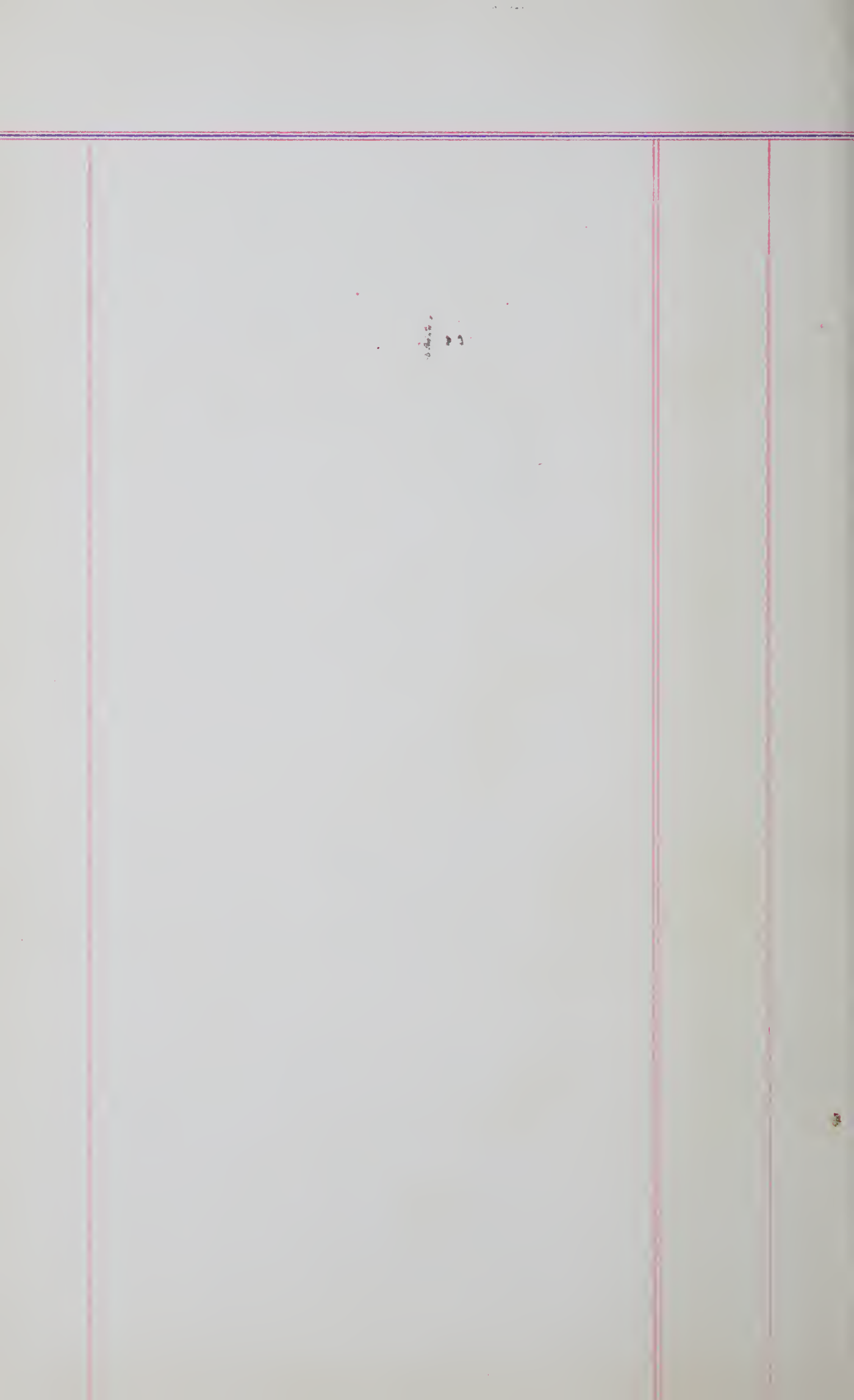
- 38 July 20 1900. Swarm from #23 at 10.45 A.M. Gave 1 No 2 section & 8 lbs of honey. Swarmed 1 time.
- 39 July 11 1900. Gave 49 No 1 & 9 No 2 sections, also 15 $\frac{1}{4}$ lbs of honey.
- 40 Sept. 13 1899. Gave 18 No 1 & 4 No 2 sections, also 23 $\frac{1}{4}$ lbs of honey. Swarmed 1 time.
- 41 Aug. 26 1899. Swarm from #21 at 3 P.M. Gave 54 No 1 & 13 No 1 sections, also 26 lbs of honey; swarmed two times.
- 42 May 29 1900. Gave 10 $\frac{1}{2}$ lbs of honey.
- 43 June 2 1900. Swarm from #2 at 10.30 A.M. Gave 44 No 1 & 21 No 2 sections, also 25 $\frac{1}{4}$ lbs of honey.

44 June 17 1900. Swarm from #6 at 1.30 P.M. gave 5^{no} & 1 & also 2 2/4 lbs. of honey.

45 Sept 7 1900. Swarm from #4 at 11.4 A.M. gave 2 lbs of honey.

46 Sept. 7 1900. Swarm from #41 at 1.45 P.M. gave 31^{no} & 10^{no} sections, also 2 3/4 lbs of honey.

47 Sept 7 1900. Swarm from #15 at 1.55 P.M. gave 2^{no} & 8^{no} sections, also 1 1/2 lbs of honey.



Phaeornis obsura. Hawaii No 1
Oman

Known as the Whistlingbird or Thrush.

Color gray brown. Length 7 inches. Was in full song when shot. Found in # 4 field, Horner's Ranch. Time about 11 A.M. July 3. 1903. Breeding, as Ovaries large. Male. Elevation about 900 feet.

Order, Passeres, - Puckering Birds
Family, Turdidae - Thrushes etc.
Genus - Phaeornis

Phaenomis obscura. Hawaii. No. 2.
Native name - Oman.

Color - gray brown. Length 7 inches. Was in full song when shot. Found in # 3 field Hone's Ranch. Time, 10.30 A.M. July 3. 1903. Moulting, not breeding, ovaries very small. Male. Elevation about 1950 feet.

Chlorodrepanis Virens

Hawaii

No. 3.

Native name - Anakihū

Color. Olive green to bright yellow-green. Curved bill. Black face. Was in full song when shot. Found in #3 field, Louis Ranch, near old ranch road. Adult male, almost in perfect plumage. Length 4.5 inches. Food at this time of the year - green or the army worm. Elevation 2000 feet.

Phaeornis obsura.

Hawaii

No. 4.

Native name - O mau.

Color, gray brown. Length 7.1 inches. Was in full song when shot. Found in coffee field, near Staircase gulch, Howe's Ranch. Date July. 3. 1903. Female, not breeding. Elevation about 3,500 feet.

Chlorodrepanis Virens

Hawaii

No. 5.

Native Name - Anakiki.

Color, pale yellow green. Length 4.25 inches. Curved bill, $\frac{1}{2}$ inch long. Found in # 4 field, Homer's Ranch, July 3, 1903. Not breeding. Female. Food at this time of the year - green or the armyworm.
Elevation about 1900 feet.

Amatorne sanguinea Hawaii No 6
Native name - Apapane

Color, red and black, with black feet, legs and bill.
Length 5.375 inches. Found ~~above~~ stone fence, 8,000 feet
, Homeis Ranch, Dec. 26. 1902. Male.

Phasempis sandwicensis

Hawaii

No. >

native name - Elepaio.

Color, brown and white. Length 5.50 inches. Moulting.
Found in # 4 field Home's Ranch, July 3. 1903. Was in full
song when shot. Young female, not breeding. Elevation
about 2250 feet. X

No. 8. Chasiempis samuelsoni^{d.}
Native name. "Elipai"

Hawaii

Color, brown on back, dark brown on sides, white on
the breast. Length 5.3 inches. Found along upper forest
coffee field, Harris Ranch. Elevation about 4000 feet.
Female, about 1/2 years old. Ovaries small, not breeding.

- X

Chasempsis Sarivicensis Hawaii No 9.
Native name. Elepaio

Color,

Length 6.2 inches. Found in ~~the~~ part of
the lower end of cornfield, Warner's Ranch
Maunakua, Hawaii at 4000 foot elevation on
July 24, 1903 Adult female, breeding. Ovaries very
large, and some eggs almost fully developed.
Food, moths, worms, flies etc. X

No 10. Phaeornis obscura.

Hawaii

Native name - Omau

or Thrush.

Color, gray brown, length 7.6 inches ~~Female~~
December, 31, 1902. above Paauilo Homestead, Ham-
akua, Hawaii. Male. Collected on Horners Ranch.
Elevation 3500 feet.

Chlorodrepanis Virens

Hawaii

No. 11.

Native Name - Amakihi.

Color, light yellow green. Curved bill. Length 4.3 inches. Found along upper fence of coffee field, Honua Ranch, July 4, 1903, at 4:30 P.M. Adult female, not breeding. Elevation about 4000 feet.

No. 12.

Chlorodrepanis Virens.

Hawaii

Native Name - Amakihi.

Color, bright yellow and dark green. Length
inches. Found in center of coffee field, Homer's Ranch
July 4, 1903. at 5 P. M. Elevation 3750 feet. Food - green
caterpillar or army worms. Adult male, almost
perfect plumage. Was in full song when shot.

Carpodacus

Hawaii

No. 13.

Hooded Pigeon (New Bird)

Length 5.75 inches, Wing 3.13 inches Tail 2.46 in.
Tarsus .70 inches, Toe .66 inches, Culmen .45 inches
Depth of beak .36 inches, Distance from tip of wing to
tip of tail 7.50 inches.

Hawaii

No. 14. Chlorodrepanis Virens
Native Name - Amakihi

Color, olive green yellow. Length 4.65 inches. Found
above Paavilo Hamestead, Hamakua, Hawaii, Dec.
28, 1902. Elevation about 3500 feet. Adult male.

Orneryza maculata

Oahu

No 15.

Native - name - Amakihi.

Color, green. Straight bill. Length 4.5 inches. Found on the island of Oahu in the Wainai Mts. on Selehua Ranch, in Haleauau gulch, at base of Koola, May 17, 1903. Elevation about 3400 feet. Food, wood worms and bugs. Female.

No. 16. Oreomyza maculata

Oahu

Native name - Amakihi

Color, green. Length, 4.375 inches. Found on Lilehua Ranch, Waianai Mountains, at base of Kaala, Mar. 31, 1903. Elevation 3400 feet. Female.

Oreomyza maculata

Oahu

No. 17

Native name. - Amakihii

Color, green. Length 7.80 inches. Found on Lilehua Ranch, in Waianai mountains, at base of Kaala, April 3. 03. Elevation 3400 feet. Female. Straight bill. Prepared by L. A. Miller and presented by him to C. E. B.

Oahu

No. 18. Oncomyza maculata.

Native name - Amikiki.

leolo, queen. Length 4 inches Found on Leilehua
Ranch, in the Waianai mountains at base of Kaala,
April 2, 1903. Elevation 3400 feet. Female.

Oreomyza maculata

Oahu

No 19

Native name - Amakihi.

Holo, Oahu. Found on Lilehua Ranch, in Waianai mountains at base of Kaala April 2. 1903. Female. Elevation 3500 feet.

No. 20. Oreomyza maculata Oahu
Native Name - Amakihi

Color, yellow on the under side and under part,
and sides of head; dark olive green on back and
wings. Length 4.85 inches. Found on Seilehua
Ranch, in Waianai mountains at base of Kaala,
April. 2. 1903. Adult male, in almost perfect plumage.
Was in full song when shot. Elevation 3500 feet.
Straight bill $\frac{1}{2}$ inch long.

Chlorodrepanis chloris.

Oahu.

No. 21.

Native name - Amikiki

Color, yellow green. Length 4.5 inches. Found on
Lilikoi Ranch, in the Waianai mountains, April 3.
1903. Male. Elevation 3400 feet. Curved bill

Oahu

No. 22. Chlorodrepanis lehoris

Native name - Amakili.

Color, pale yellow green. Length 4.375 inches
Found on Lelehua Ranch in the Waianai mountains
March 29, 1903. Male. Elevation 8250 feet. Curved bill.

Oahu

No. 23.

Chlorodrepanis chloris

Native name - Anakihiki

Color, light yellow green. Length 4.4 inches. Found
on Lelehua Ranch in the Waianai mountains, April 1.
1903. Curved bill. Male. Elevation 3300 ft.

Hawaii

No 24. Amatione Sanguinea

Native name - Arahane

Color, dark scarlet, white on the abdomen and black on the tail and wings. Length 5.25 inches. Found in Kukaian Field, Horner's Ranch, Hamakua, Hawaii. Date collected Dec. 24. 1902. Male. Slightly curved bill, black in color. Elevation 4000 feet.

Amatione sanguinea

Oahu

No. 25.

Native name - Apapane

Color, dark red and black. Found on Lilehua Ranch
in the Waianai mountains on the island of Oahu, March
31, 1903. Was in full song when shot. Female. Elevation
about 3500 feet.

No. 26. Amatium sanguinea Oahu
Native Name - Apapane.

Color, red and black. Found on Lilehua Ranch
in the Waianai Mountains, Oahu, March 29, 1903.
at the base of Kaala. Elevation 3500 feet. Male.

Amatione sanguinea

Oahu

No. 27.

Native name - Apapane

Color, red and black. Length 5.00 inches. Found on
edge of Maile Valley, Oahu. Elevation about 2500 feet.
Collected March. 14. 1903. Female.

No. 28. Amatione Sanguinea. Oahu

Native name - Apapane.

Color, red and black. Found on Lelehua Ranch
in the Waianai mountains, March 30, 1903. Male.
Feeding on Santalum bushes, after worms, etc.
Elevation 3200 feet.

Vestiaria Coccinea

Oahu

No. 29.

Native Name. Iiwi

Color, bright scarlet and black wings. Length 5.95 inches. Long curved bill and of an orange color. Found on Lilehua Ranch, in the Wainai mountains, April. 3. 1903. Adult male. Found near the base of Kaala, Elevation 3700 feet.

No. 30. Victoria Rocinea

Oahu.

Native name - Iwi.

Color, scarlet and black. Length 5.375 inches
Found on Sulekua Ranch in the Waimai mountains
near the base of Kaala, May. 17. 1903. Curved bill.
Female. Elevation 3700 feet.

Oahu

No. 31.

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no 32

Oahu

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Nycticorax nycticorax naevius

Oahu

no. 33.

Native name - *Auku Kohili*.

Length

No. 34. *Heterorhynchus Wilsoni*.

Hawaii.

Native Name - *Muhupuu*?

Color, bright yellow green, with dark olive green yellow wings. Curved bill, upper jaw much longer than the lower jaw. Found, below stone fence, Horner's Ranch Paunilo, Hamakua, Hawaii, on July. 15. 1903. Adult male, and in perfect plumage. Testes enlarged, breeding. Elevation > 3000 feet. Length 5.9 inches.

Loxioides bailleui.

Hawaii

No. 35.

Native Name - Palila.

Color, gray, with yellow head and neck, short thick
parrot like bill. Length 6.5 inches. Found above
stone fence, Horner's Ranch Hamakua Hawaii,
July 15, 1903. Adult male. Not breeding. Food, the
buds and ends of branches of Manamane. Ele-
vation 8,000 feet.

Hawaii

No 36. *Loxioides bailleui*.

Native name - Palila.

Color, gray, with yellow head and neck. Length
6.6 inches. Male. Found above stone fence about
8,000 feet elevation on Horner's Ranch, Hamakua
Hawaii, July 15, 1903. In full song. Testicles
enlarged.

Loricoides bailleui.

Hawaii.

No 37

Native Name - Palila

Color, gray with grayish yellow head and yellow neck on under side. Length 6 inches. Found above the stone fence, 8000 feet elevation on Horner's Ranch Hamakua Hawaii, July 15, 1903. Female small ovaries. Food, the young birds and tender branches of the *Mauromela* tree.

No. 38. *Loxioides bailleui*.

Hawaii

Native name. - Palila.

Length 6.7 inches. Adult male found at 8,000 feet elevation on Horner's Ranch Hamakua Hawaii up in the Mamane trees on July 15, 1903 Took, the tender shoots and buds of the Mamane trees, etc.

Oreomyza mana

Hawaii

No. 39.

Native name -

Color, light grayish yellow green, length 4.25 inch.
Found at 7,500 feet elevation on Hornie's Ranch,
Hamakua Hawaii. Female, not breeding. White
face. Food, wood worms, found on dead trees, etc.
chiefly wood borers.

No 40. *Oreomyza mana*.

Hawaii

Native name.

Color, light olive green. Length 4.25 inches. Found
below stone fence about 7,500 feet elevation on Homer's
Ranch Hamakua Hawaii, July 15, 1903. Male.
Straight bill and with a white face. Food, wood
worms, etc.

Oreomyza mana.

Hawaii

No 41

Color, pale olive green. Length 4.25 inches. Straight bill. Black face, may be a cross between the *lehlouche-pauis* birds and the *Oreomyza mana*. The bill is black, and much darker than that of the *Oreomyza*. Found below stone fence, about 7,500 feet elevation on Home's Ranch Hamakua, Hawaii, July 15, 1903.

Female.

No. 42. *Oreomyza mana.*

Hawaii.

Color, pale olive green.	Length	inches
White face.	Found on Horner Ranch at 7,000 foot elevation on July 22, 1903.	Female, straight bill.

Chlorodrepanis Virens.

Hawaii

No. 43.

Native name - Amakihi

Color, bright yellow green. Length, 4.5 inches.

Found in ²kaala field near ~~Waialeale~~
blow-stone fence.

Elevation about 7000 feet, on Horner's Ranch
Hamakua Hawaii, July 22, 03. Male. Curved
bill.

No. 44. *Chlorodrepanis Virens* -

Hawaii.

Native Name. - Amakihi

Color, bright yellow green. curved bill. Length
4.75. Found just below stone fence, at 8,000 feet
elevation, on Horner's Ranch Hamakua Hawaii,
July 15 1903. In full song, adult male, and in
full plumage.

Chlorodrepanis Virens.

Hawaii.

No. 45.

Native Name - amakihi.

Note

Length 4.5 inches, Wing 2.6 inches, Tail 1.65 inches
Culmen .66 inches, Tarsus .9 inches. Toe .61 inches
Depth of ^{bill} beak .23 inches. Distance from tip of bill to
the carpal joint of wing 1.5 inches.

Color dark olive greenish yellow on back and
head, on sides lighter and more whitish yellow.
Tail dark olive green. Ires dark or sooty.

Young male, found at 3700 foot elevation on
Horn's Ranch, in coffee field, on Aug. 10, 1903
Curved bill.

No. 46

Oreomyza
hawaii.

Hawaii

Color, pale, dark olive green. Length 4.5, Found
on Morris Ranch, Hamakua, Hawaii at 7,000
foot elevation on July. 22. 1903. Straight bill
male. black face = does dark, bill dark

Chlorodrepanis Virens.

Hawaii

No. 47.

Native name - Amakihi

Color, bright yellow green, curved bill. Length 4.6
inch. Found below stone fence at 7,500 foot elevation
on Homer's Ranch on July 15, 1903. Male.

No. 48. *Oreomyza mana*

Hawaii

Note

Length 4.40 inches, Wing 2.60 inches, Tail 1.66 inches
Tarsus .91 inches, Toe .62 inches, Culmen .53 inches
Depth of beak .22 inches, Distance from tip of beak
to the wing (carpal joint) 1.625? inches.

Color, dark olive green on crest and back, wings
darker and with some black, tail similar,
on under lighter, and more whitish. Dors
dark, almost black, bill dark. Old male, Found
at > 500 foot elevation on Horn's Ranch, Kawa
kua Hawaii in the Mamamie's on Aug. 18.
1903. Almost in full plumage.

Loxia bairdi.

Hawaii

No. 49.

Native name - Palila

Color, gray with yellow head. Length 6.8 inches
Found in Maunaloa field on Homer's Ranch at
6600 foot elevation on July 22, 1903. Female.

50. no. *Phaeornis obscura*.

Hawaii

Native name - Oman

Length 7.4 inches, Wing 4.10 inches, Tail 3.10 inches.
Culmen .635 inches, Tarsus 1.45 inches, Toe .90 inches.
Depth of beak .225 inches. Distance from tip of
beak to wing (carpal joint) 2.00 inches.
Color of beak blue black, width of same .40 inches.
Found at upper edge of coffee field at 3900
foot elevation on Horner's Ranch, Hamakua
Hawaii on Aug. 10. 1903. Adult male. Color

Vestiria Coccinea, Hawaii No. 51.
Native Name - Iiwi

Color, bright scarlet. Length 6 inches. Found
at 4000 foot elevation, at upper edge of coffee
field in the corn field on Homer's Ranch
Maunakua Hawaii, July 24, 1903. Food, gum
catpillars, etc; at this time of the year.
?mate, possible a young one. long curved
bill. Not breeding.

52. No. *Vestiaria Coccinea*, Hawaii
Native name. - Iwi

Color, yellow green with scarlet splashes on
the breast.

Length 5.7 inches. Found
at lower end of corn field at 4000 foot
elevation on Horn's Ranch Hamakua
Hawaii on July. 24. 1903 Young female,
this year's hatched chick. Curved bill.

Vestiaria Coccinea. Hawaii No. 53.
Native name - Iiwi

Color, dark yellow olive green, with black spots on back and neck, also sprinkled with scarlet feathers, black wings and tail length 5.8 inches, curved bill. Found in the N part of the lower end of Cornfield Horner's Ranch at 4000 elevation on July 24, 1903. Young male, about 10 to 14 months old. Food: tent caterpillars, army worms, honey insects etc.

No 54 *Amatione Sanguinea* Hawaii
Native name - Apapane.

#55 ^{see opposite page.}
Cela.

Length 5 inches, curved bill. Found
in NW part of the lower end of Cornfield,
Homer's Ranch, Hamakua Hawaii at 4000
foot elevation on July 24, 1903. Young
male, about 10 to 14 months old.

#54 Cela, blackish gray with feathers tipped
with reddish brown on back, on breast greyish
white, wings black, with bronze tipped,
tail black. Length 5.1 inch Young
female. Found in N.W. corner of the lower part
of Cornfield at 4000 foot elevation on Homer's Ranch
Hamakua Hawaii, on July 24, 1903. Exchanged
with M. S. H. Miller. Aug. 15, 1903

Himatione sanguinea. Hawaii

No. 537

Native name - Apapane

Color, blackish gray on the back, splashed with reddish brown spots; on breast greyish white, wings and tail black. Length 5 inches, curved bill. Young male.

No 56. Phaethontidae lepturus

Hawaii

Bowen's birds

Color, black and white. Length 24.6 inches.

² Found near Kukuaan Hill Aug. 1. 1903.

Female. ³ Keefut. Belong^{to} the ~~Ika~~ Ika bird family.

Elevation about 200 feet. Tail composed of long white feathers with a black rib down the center.

Phaethontidae lepturus

Hawaii

No. 57

Bowser birds.

Color, black and white. Length 20.25 inches

Found near Kukaian Mill on Aug. 1. 1903

Female, ovaries enlarged, possible breeding,
some of the ovaries greatly enlarged than others.

Given to Olive R. Hornum.

No 58. *Stimatore sanguinea* Hawaii
Native name - Apapane

Length 5.30, Wing 2.90 inches, Tail 2.25 inches
Culmen .63 inches, Tarsus .99 inches, Toe .70
inches, Depth of bill or beak .22 inches, Distance
from tip of beak to wing (carpal joint) 1.53 inches.
Color of legs blue black, feet with redish pale yellow
Found in lowfield at 4000 foot elevation on
Homer's Ranch, Hamakua Hawaii. Young
male. Food, worms etc.

Amatorne sanguinea. Hawaii No 59

Native name - Apapane.

Length 4.75 inches, Wings 2.62 inches, Tail 1.90 inches
Culmen .60 inches, Tarsus .90 inches, Toe .67 inches
Depth of beak .19 inches, Distance from tip of beak
to wing (carpal joint) 1.375 inches.

No. 60. *Vestiaria coccinea*

Hawaii

Native name - Iiwi

Length 5.95 inches, Wings 3.10 inches, Tail 2.05 inches
Culmen 1.05 inches, Tarsus 1.05 inches, Toe .70 inches
Depth of beak .28 inches, Distance from tip of
beak to wing (carpal joint) 2.30 inches.

Color of bill yellow carmine. Found in
N. W part of lower end of Cornfield. Home's
Ranch Hamakua Hawaii, at 4000 foot ele-
vation on Aug. 10. 1903. Young male, shot
while feeding on caterpillars which eat the
leaves of the Ohia trees. Exchanged with
Mr. L. H. Miller, Aug. 15. 1903.

Chasiempis sandvicensis

Hawaii

No. 61.

Native name - Elypaio

Length 6.2 inches, Wings 2.90 inches Tail 2.6 inches
Culmen .52 inches, Tarsus 1.10 inches, Toe .60 inches
Depth of beak .19 inches, Distance from tip of
beak to wing (carpal joint) 2.00 inches.
Color of legs, slate. Found in #3 field at 3200 foot
elevation on Home's Ranch, Hamakua Hawaii
on Aug. 10. 1903. Adult male, in full plumage,
though badly worn

X

No. 62.

Munia nioioides

Hawaii

Chinese sparrow.

Length 4.40 inches, Wing 2.15 inches, Tail
1.52 inches, Tarsus .55 inches, Toe .62 inches
Depth of beak .33 inches, Culmen .45 inches
Distance from tip of beak to wing (carpal joint) 1.25 in.
Found at Kukui, at 850 feet elevation.

Phaethon lepturus

Hawaii

No. 63

White Tailed Tropic Bird.

Length 22.25 inches, Wing 10.10 inches, Tail 11.75 inches
Tarsus .90 inches, Toe 1.50 inches, Culmen 1.90 ..

Depth of beak .75 inches. Distance from tip of
beak to wing (carpal joint) 5.20 inches.

Male, food small fish. Black and white, with
a salmon tinge. Found near Kukaianui Mill
Hamakua Hawaii on Aug. 13. 1903

no. 64 *Chasiempis sandwicensis* Hawaii

Native name. Ekipaio

Length 5.9 inches. Wing 2.75 inches, Tail 2.4 inches
Tarsus .95 inches, Toe .66 inches, Culmen .43 "
Depth of beak .18 inches, Distance from tip of
beak to wing (carpal joint) 1.75 inches.

Found in #3 field about 3000 foot elevation
on Horner's Ranch Hamakua Hawaii on
Aug. 16, 1903 I think it is a young bird.
Female, color: X

Heterorhynchus wilsoni.

Hawaii

No. 65

Length 5.90 inches, Wing 3.20 inches, Tail 1.40 inches
Tarsus 1.03 inches, Toe .82 inches, Culmen .95 inches
Depth of beak .30 inches, Distance from tip of beak
to the wing (carpal joint) 2.01? inches, Hind
toe .79 inches, Wing falls short of tail by .69 inches.
Lower mandible .65 inches. Color: on throat ^{rich} golden
yellow, ^{which} gradually changes to yellow olive green on
sides of abdomen, under color of feathers lead color,
crest yellow brown fading into olive green yellow
on back, wings black brown tinged with olive green
tail similar, under tail coverts light yellow.
Feet slate dark blue, beak blue black; under side of feet
yellowish white. Does, dark, almost black. Adult
male, and in full plumage. Was in full song
when shot. Found on Honu's Ranch at 7,500 foot
elevation on Aug. 18. 1903 up in the Mamane's above
the Waianae road.

No. 66 *Oncomyza mana*

Hawaii

Length 4.52 inches, Wings 2.74 inches, Tail 1.69 inches
Tarsus .84 inches, Toe .70 inches, Culmen .53 "
Depth of beak .21 inches, distance from tip of beak
to the wing (carpal joint) 1.25? inches.

Adult male, found on Harris Ranch at 7,600
foot elevation on Aug. 18, 1903 Food, worms and
eggs of moths, etc. live up in the *Maunani*
trees. Color.

Oreomyza mana

Hawaii

(No. 6)

Length 4.60 inches, Wing 2.73 inches, Tail 1.68 inches
Tarsus .85? inches, Toe .625 inches, Culmen .55 inches
Depth of beak .20 inches, Distance from tip of beak
to the wing (carpal joint) 1.58? inches, Adult
female, found at 5,600 foot elevation on Hornie's
Ranch Hamakua Hawaii on Aug. 18. 1903

No. 68 *Oreomyza mana*

Hawaii

Length 4.51 inches, Wing 2.60 inches, Tail 1.59 inches
Tarsus .90 inches, Toe .69 inches, Culmen .56 "
Depth of beak .22 inches, Distance from tip of beak
to the wing (carpal joint) 1.50? inches.

Female. Found at 7500 foot elevation on Hornie's
Ranch on Aug. 18. 1903 up among the Maunani's

Loxops coccinea

Hawaii

Vol. 69

Native name - Akepiá

Length 4.40 inches, Wing 2.40 inches, Tail 1.80 inches
Tarsus .84 inches, Toe .65 inches, Culmen .42 inches
Depth of beak .19 inches, Distance from tip of beak
to the wing (carpal joint) 1.375? inches. Adult
male, just moulting, so is not in full plumage.
Found above 7,500 feet elevation, and west by north
of Pekihi on Horner's Ranch, Hamakua Hawaii on Aug.
23, 1903. Feeding in the Mamane trees.

Sunday afternoon, about 2.30 P.M.
at the edge of the sand field

No. 70 *Oreomyza mana*

Hawaii

Length 4.62 inches, Wing 2.75 inches, Tail inches
Tarsus inches, Toe inches, Culmen .50 ..
Depth of beak inches. Distance from tip
of beak to the wing (carpal joint) — inches
Female, found at 7,500 foot elevation on Homer's
Ranch Hamakua Hawaii in the Mamane
trees on Aug. 23. 1903

Chlorodrepanis virens

Hawaii

No. 71

Native Name - Amakihi

Length 4.45 inches, Wing 2.65 inches, Tail 1.64 inches
Tarsus .95 inches, Toe .65 inches, Culmen .57 inches
Depth of beak .20 inches, Distance from tip of beak
to the wing (carpal joint) 1.50? inches. Ad. female
but just moulting now. Found at > 800 foot elevation
on Horner's Ranch Hamakua Hawaii up among
the Mamane trees on Aug. 23. 1903.

No. 72 *Heterorhynchus wilsoni*

Hawaii

Length 5.85 inches, Wing 3.20 inches, Tail 1.70 inches
Tarsus .95 inches, Toe .89 inches, Culmen 1.02 inches
Depth of beak .28 inches. Distance from tip of
beak to the wing (carpal joint) 2.20? inches.
Third Toe, .70 inches, down mandible .70 inches.
Adult male, found at 5500 foot elevation
of Honu's Ranch Hamakua Hawaii up
in the Koas below Waimea road, on Aug
26. 1903. Food, worms, etc. Testicles enlarged.

Doxioides bailloni,

Hawaii

no 73

Native name - Palila

Length 6.90 inches, Wing 3.65 inches, Tail 2.61 in.
Tarsus 1.00 inches, Toe .90 inches, Culmen .50 inches
Depth of beak .40 inches. [Distance from tip of
beak to the wing (carpal joint) — inches.
(not used)] Distance from tip of wing to tip
of tail about 1.50 inches. Adult female, found
at 7,800 feet elevation up among the Mamane
trees on Horn's Ranch, Hamakua Hawaii
on Aug. 26, 1903. Moulting

No. 74 *Oreomyza mana*

Hawaii

Length 4.88 inches, Wing 2.72 inches, Tail 1.82 inches
Tarsus .81 inches, Toe .68 inches, Culmen .50 inches
Depth of beak .22 inches, [Distance from tip
of beak to the wing (carpal joint) — inches
(not used)]. Distance from tip of wing to tip
of tail about 7.05 inches. Adult female, found
at 7,500 foot elevation on Horner's Ranch
Hamakua Hawaii upon one of the
Mamane trees on Aug. 26, 1963.

Onomyza mana

Hawaii

No. 75

Length 4.58 inches, Wing 2.61 inches, Tail 1.73 inches
Tarsus .85 inches, Toe .70 inches, Culmen .57 inches
Depth of beak .22 inches [Distance from tip of
beak to the wing (carpal joint) — inches.
(not used)] Distance from tip of wing to tip of
tail about .82 inches. Female.

No. 76 *Oronmyza mana*

Hawaii

Length 4.6 inches, Wings 2.65 inches, Tail 1.62 inches
Tarsus .72 inches, Toe .77 inches, Culmen .545 inches,
Depth of beak .205 inches. Distance from tip of wings
to tip of tail about .80 inches. Adult male
found at 7,500 foot elevation on Hornum's
Ranch on Aug. 26, 1903.

Chasiempis sandvicensis Hawaii

No 77

Native name - Ekepaio.

Length 6.20 inches, Wing 2.90 inches, Tail 2.65 in.
Tarsus 1.00 inches, Toe .67 inches, Culmen .51 inches
Depth of beak .18 inches, Distance from tip of wing
to tip of tail, about 1.75 inches. ~~A~~ Male, found
in lower part of cornfield at 4,100 foot elevation
on Horns Ranch, Hamakua Hawaii on
Aug. 30. 1903. Is a new species or a young
bird. Male

Left at museum on Oct. 12, 1903

No 78 *Chasiempis sandvicensis* Hawaii

Native name - Elipai.

Length 5.60 inches, Wing 2.60 inches, Tail 2.34 inches
Tarsus .90 inches, Toe .60 inches, Culmen .52 "
Depth of beak .18 inches, Distance from tip of
wing to the tip of tail about 1.25 inches.

Female, found in lower part of cornfield
at 4,100 foot elevation on Horner's Ranch,
Hamakua Hawaii, on Aug. 30, 1903
Is a new species or a young bird.
Left at museum on Oct - 12 03

Chasiempis sandvicensis.

Hawaii

No 79

Native name, - Elepaio.

Length 6.40 inches, Wing 3.00 inches, Tail 2.80 inches, Tarsus
.99 inches, Toe .75 inches, Culmen .52 inches, Depth of
beak .195 inches, Distance from tip of wing to the tip
of the tail about 7.50 inches. Adult male, found
in lower part of cornfield at 4,100 foot elevation
on Homer's Ranch, Kamakua Hawaii
on Aug. 30. 1903 *

No. 80 *Charadrius dominicus fulvus* Hawaiian Islands
Hawaii

Plover.

Length 10.05 inches, Wing 7.00, Tail 2.60, Tarsus
1.80, Toe 1.43, Culmen .99, Depth of beak .45 in.

Distance from tip of wing to tip of tail
about $\frac{1}{2}$ inches, the tail falls short of the
wing tips by that amount. G. Small
Sept 2, 1903 on Norris' Ranch.

Loxioides bailleui

Hawaii

No. 81

Native name - Palila

Length 6.50, Wing 3.55, Tail 2.45, Tarsus 1.05,
Toe .83, Culmen .51, Depth of beak .40, Distance
from tip of wing to tip of tail about 1.50 inches.

Male, moulting; Found at 8,000 feet elevation
on Horn's Ranch, just below the stone fence;
Hamakua, Hawaii on Sept. 2, 1903. Feeding
off of the Mamane blossoms. Mamane in
flower

No. 82 *Vestiaria coccinea*.

Hawaii

Native name - Iwi

Length 5.45, Wing 2.80, Tail 1.95, Tarsus .95,
Toe .70, Culmen 1.00, Depth of beak .28,
Distance from tip of wing to the tip of the
tail, about .875 inches. Young female,
found up among the Mamamā's on both
sides of the stone fence and in the sand,
elevation about 8,000 feet, Homer's Ranch
Hamakua Hawaii, on Sept. 2. 1903

Vestiaria coccinea.

Hawaii

No. 83

Native name - Iiwi.

Length 6.05, Wing 3.20, Tail 2.08, Tarsus 1.0, Toe .75, Culmen 1.125, Depth of beak .30, Distance from tip of wing to tip of tail, about .875 inches.

Young male, found at 8,000 feet elevation up among the Mamane trees and on both sides of the stone fence, on Horner's Ranch Hamakua Hawaii, on Sept. 2, 1903.

No. 84

Vestiaria coccinea

Hawaii

Native name - Iwi.

Length 5.83, Wing, 3.20; Tail 2.125, Tarsus 1.100,
Toe .74, Culmen 1.10, Depth of beak .28, distance
from tip of wing to tip of tail, about $\frac{7}{8}$ inches.

Female, found up among the Mamane
trees on both sides of the stone fence, at 8,000 foot
elevation in the sand fields near Pekihi, on
Homer's Ranch, Hamakua Hawaii on Sept
2, 1903.

Vestiaria coccinea.

Hawaii

2085

Native name - Iwi.

Length 5.80, Wing 3.05, Tail 1.95, Tarsus 1.00, Toe .78
Culmen 1.04, Depth of beak .25, Distance from
tip of the wing to tip of tail, about .98 inches.
Male, moulting, Found at 8,000 feet elevation
on both sides of stone fence, on Horns's
Ranch, Hamakua Hawaii on Sept. 2. 1903

No. 86 *Vestiaria coccinea*

Hawaii

Native Name - Iwi

Length 6.10, Wing 3.10, Tail 2.20, Tarsus 1.00
Toe .72, Culmen 1.09, Depth of beak .26, Dis-
tance from tip of wing to tip of tail about 1.10
inches. Male, moulting. Found on Horner
Ranch, on both sides of stone fence, 8,000 feet
elevation on Sept. 2, 1903.

Chlorodrepanis virens.

Hawaii.

No. 87

Native Name - Amakihi

Length 4.41, Wing 2.625, Tail 1.63, Tarsus .84, Toe .59, Culmen .54, Depth of beak .19, Distance from tip of wing to tip of tail, about .75 inches
♂ male, ^{may} be a young bird. Found on Homer's Ranch at 8,000 feet elevation on Sept. 2, 1903.

no. 89 *Chlorodrepanis virens*.

Hawaii

Native name - Anakihiki.

Length 4.42, Wing 2.60; Tail 1.50, Tarsus .90, Toe .63, Culmen .55, Depth of beak .20, distance from tip of wing to tip of tail, about .70 inches.
Female. Found on Horns' Ranch at 8,000 feet elevation on Sept. 2, 1903. May be a young bird.

Chlorodrepanis virens.

Hawaii

No. 89

Native name - Anakihi.

Length 4.52, Wing 2.62, Tail 1.62, Tarsus .90, Toe .69, Culmen .58, Depth of beak .21, Distance from tip of wing to tip of tail, about .70 inches.

Male, may be a young bird. Found on Horner's Ranch, Hamakua Hawaii, at 8,500 feet elevation on ~~Horner's~~ Sept. 2, 1903.

No. 90 *Chlorodrepanis virens*. Hawaii

Native name - Amakihi.

Length 4.40, Wing 2.50, Tail 1.60, Tarsus .89, Toe
.63, Culmen .53, Depth of beak .22, Distance
from tip of wing to tip of tail, about .75 inches.

Female, Found at 8,000 feet elevation on
Homer's Ranch, ad on Sept. 2, 1903.

Hemignathus obscurus, Hawaii No. 91

Native name - Akialoa

Length 6.20, Wing 2.90, Tail 1.70, Tarsus .92, Toe .80
Culmen 1.45, Depth of beak .23, Distance from
tip of wing to tip of tail, about .70 inches.

Width of beak .23 inches. Upper culmen $\frac{2}{100}$ longer
than the lower mandible. Female, found
about half way through #3 field along road to
Horn's Ranch house on Sept. 14, 1903 among
the Ohia's. These birds have just made their
appearance within the last week. Sept. 7, 1903.
at about 3,250 foot elevation.

No. 92. *Hemignathus obscurus*. Hawaii

Native name - Akialoa.

Length 6.00, Wing 3.27, Tail 1.83, Tarsus .93, Toe .86
Culmen 1.60, Depth of beak .26, Distance from
the tip of wings to the tip of tail, about .70 inches.
Width of beak .22 inches. Adult male
found on Horner's Ranch in #3 field
on Sept. 8, 1903 at 3,500 foot elevation.
Sent to Dr. A. Miller

Hemignathus obscurus. Hawaii No 93

Native name - Akialoa

Length 6.10, Wings 3.20, Tail 1.75, Tarsus 1.00, Toe .82
Culmen 1.625, depth of beak .25, Distance from the
tip of the wing to the tip of the tail, about .52 inches.
Width of beak .24 inches. Adult male, moulting.
Found on Horns' Ranch in #3 field at
about 3,600 feet elevation on Sept. 8. 1903.

no. 94 *Chlorodrepanis virens*,

Hawaii

Native name - Amakihi.

Length 4.60, Wing 2.70, Tail 1.71, Tarsus .96, Toe .68,
Culmen .53, Depth of beak .195, Distance from
the tip of the wings to tip of tail, about .75 inches
Width of beak $\frac{19}{100}$ inches. Male, found
in #3 field on Horner's Ranch, Hamakua
Hawaii, on Sept. 8, 1908.

Chlorochepanis virens,

Hawaii.

No. 95

Native name - Amakihi

Length 4.52, Wing 2.50, Tail 1.47, Tarsus .89, Toe .61
Culmen .53, Depth of beak .21, Distance from the
tip of the wings to the tip of the tail, about .75 inches
Width of beak .215 inches Adult female, found
on Horner's Ranch in #3 field on Sept. 8, 1903.

no. 96 *Chasiempis sandwicensis*. Hawaii.

Native Name - Elepaio.

Length 5.55, Wing 2.80, Tail 2.375, Tarsus .98, Toe .68
Culmen .56, Depth of beak .18, distance from the
tip of the wings to the tip of the tail, about 1.40 inches
Male, found in #3 field on Honu's Ranch
Hamakua Hawaii, on Sept. 8, 1903. X

Chasiempis sandwicensis. Hawaii

no 97

Native name, Elepaio.

Length 5.80, Wings 2.70, Tail 2.55, Tarsus .95, Toe .63,
Culmen .54, Depth of beak .17, Distance from
tip of the wings to the tip of the tail, about 1.50 inches.
Female, found in #3 field on Bourne's Ranch
Hanalei Hawaii, on Sept. 8, 1903. x

no. 98 *Phaenomis obscura*.

Hawaii

Native Name - *Omau*

Length 7.20, Wing 4.05, Tail 3.03, Tarsus 1.45, Toe 1.05
Culmen .68, Depth of beak .22, distance from the
tips of the wings to the tip of the tail, about 1.65 inches.
Width of beak .36 inches. Adult male, found
in # 4 field Horner's Ranch, Hanaleiua
Hawaii on Sept. 8. 1903.

Length	Wing	Tail	Tarsus	Toe
culmen	Depth of beak	Distance from tip		
of wings	to the tip of the tail,	about		inches.

Length, Wing, Tail, Tarsus, Toe
culmen, Depth of beak, Distance from
tips of wings to the tip of the tail, about inches.

Length	Wing	Tail	Tarsus	Toe
Culmen	, depth of beak		, Distance from the	
tips of the wings to the tip of the tail, about inches.				

No 102

Length Culmen the tip of wings to the tip of tail, about	, Wing , Depth of beak	, Tail , Distance from	, Tarsus , Toe	, Toe inches.
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length	Wing	Tail	Tarsus	Toe
Culmen	depth of beak		distance from	
		the tips of wings to tip of tail, about		inches.
Width of beak				

Length Culmen beak about	Wing Width of beak Distance from wing tips to tip of tail inches.	Tail Depth of	Tarsus Depth of	Toe
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Length, Wing, Tail, Tarsus
Toe, Culmen, Width of beak, Depth
of beak, Distance from wing tips to tip of tail, about
inches.

No. 134.

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W. J. Wert.
Lyndonville
Orleans Co.

N. Y.
U. S. A.

No. 139.

Dec. 25. 1903

Prof Roy H. Miller,

Dear Sir

I saw your name in the "Condor" and I write to ask if you would exchange some Hawaiian Bird skins for American Bird skins or sets of eggs. I would like to get one or two of each of the smaller species up to size of small Hawk, etc. If you care to exchange, send a list with price for bird and I will send list of what I can offer, and if you do not care to exchange will you please hand this letter to some Collector. I wrote to the Bishop Museum but they were not in want of any American skins.

Very Very Truly yours
W. J. Wert.

Orleans Co.

Lyndonville N. Y.

List of Birds Sent to Mr. Miller

- No. 60. Young male, *Oestrinia coccinea*, Aug 15. 03
" 54. " female. *Himatione sanguinea*. " " "
" 72 adult male *Himatione sanguinea* O.

