

1909

Stridulation at Tentic Utah
T. gracilis - Flight

Accompanied by a tick
tick tick tick soundest
when rising and alighting

T. cyanipennis flight
often accompanied by
considerable chirping
with a clatter upon
alighting. Something
like the sound produced
by T. fallax.

T. cyanipes makes a
whirr especially when
rising in flight. This
noise is not as loud
as that produced by
cyanipennis and
is not accompanied
by such a clatter.

1909

and suddenly strikes
red sands and on

blauve hills
with western vegetation
This is much the same
gradually becoming
less broken up to
forests where back
of the river cliffs the
ground is covered
with an open plain
covered with prairie
I know forests where
the ground is almost
grass with a little oak
quite billings the valley
is more prairie

Requaining to Ashland to
below Rhineland - Rugged
country wooded & brush country
Also came from the Pappewa
falls to Duluth - Below
toward St Paul farming
country. Duluth to
Brainerd less rugged
much swampsy land.
Brainerd to beyond
Fargo wooded sparsely
farming - Beyond Fargo
to Jamestown prairie
Beyond to a
grassy bare rolling
country after Mandan
gradually becomes
a little more grassy
and white sage appears
in security wisps.
Then in western N.D.

1909

A/

55 SA

Saxon Wisconsin July 22

in high, swampy grasses - Very wet. Clear
Melanophus spoticus common

" *mic. Parorga* like, the most plentiful species - Many nymphs

in strawberry wild beds -

Melanophus laticornis ♂ Almost all seen taken - Sweeping

method for quick sweep
wide than method -

3 *D. carolina* seen 1 taken

3 *Settigida* *benydeni* taken by beating - Long search

failed to get others but many nymphs as also

apparently a *Settigida* sp. nymphs. *M. femoratus*

taken - nymphs of *Campoplex* *indiana* new - 10 m to 1 inch

collecting was done all along R. R. crossing through a *Tamarack* swamp.

1 *Cricotellus verrucellatus* Rhoads & W. W. V. 23

A2 Wright Mine VII. 24 -

Carlton Co.

Specimens all taken in
high grasses beside R.R.
sweeping - *C. verrucellatus*
D. carolina var. *melanophus*
apertus? very plentiful -

Atkin Co.

at Ude Mine VII. 24 in
dry blackberry bushes and
other such vegetation
1 *Chorthippus* 1 *M. laticornis* -
Careful search failed to
reveal anything along the
R.R. of interest and even
the species common in
the grass were here scarce

A3 Staples Mine VII. 24 -

Archidius, *Cono* *farvatus*

Melanophus *fuscus* *viridis*

Sandheria taken in ditch
of high weeds -

A3 cont. Single *Trimerotropis*
~~taken in sandy spot~~
among strawberries & such
plants - Among the
same *M. labialis* common
& 2 long wing form taken
Also 1 ♂ ch. w. ♀ *Nealoxys*
and a lot of *Onychophanes* -
Chloactis cuspida,
Chortippus everywhere as
well as *M. spretis*. *P.*
carolinensis.

A4 Mandan N. Dakota VII. 25
In sparse vegetation at foot
of river in the rolling country
2 *Amblyopoda rufipes* - a few
nymphs also seen. 1 single
Amphibia. *M. spretis* - in
thicker spots same location
a few *Hesperolethx* taken
all just molted - a number
nymphs seen - ^{as as 1, 2, 3, 4} *Ch. white*
large nymphs *H. alba*

These ~~practically~~?

One *Archelimum* taken
from the ~~the~~ in the
Along stream *Sagittaria*
conocarpoides & *M.*
fenestrata (1) taken - In
all these places *Orthoptera*
was by one means abundant
in prairie vegetation
(Specimen envelope)
on upper slopes &
Top of hills *M. m.*
and *M. pubescens*?
were very plentiful but
not swarming - The
smaller in the lower
places the other in grass
M. bowditchii seen (12016)
in similar place as
last. *Asymphora*
a few taken in same
locality and 1 *A. c.*
Nymphs of *H. trilineata*

seen on ~~middle~~ level
 Large *M. apertus* ???
 taken all on top of ^{hill} grass
 in prairie grasses
Mentobryna taken
 in grass at foot of hill
 not any others seen
M. laticornis? Few taken
 mostly in prairie grasses
 I saw at *Devinot*? see
 all of these species
 are a foot top hills.

AS Dickinson N. Dakota VIII. 25
 On rolling grass chiefly
 covered prairie - Butterflies
 very scarce - *Thomomys*
 the only sp. of which more
 than 1/2 doz were seen.
~~Nothing interesting~~
~~shortly after~~
~~ground of heart near~~

A 6 Mendive Mont. VII. 26

Hungry Joe Butte - Top

alt about 500 ft above town.

grassy swamps of M. Koon
a very few *Onocera rugosa*

Mont. *coloradus*, M. *infantilis*?

M. *minor*? ^{1 Cordillera} On edges in

nearby grasses M. *spretus*?

D. clavatus. On bare
slopes of butte *J. caeruleipes*

plentiful and *C. rabula*
almost as thick -

M. *spretus*? and *aplopus*
also plentiful in scrub

vegetation - 2 su. sp. *J.*

melanoptera group *Taber*

high on ledges. At

foot along bare ^{dry} water

courses *C. rabula* and

J. melanoptera? ~~not~~

numerous and *J.*

caeruleipes common

M. *spretus* ^{almost} swamps in

vegetation while west.

nowa very common
and ~~very~~ plus common
Metator found, not
scarce on edges of
town in bare spots
and in same location
2 colonies of *viriculata*
found. *M. fumiverrum*
taken in grass near R.R.
1 ♀ *Chlocallis conspersa*
taken in grasses at
foot of hill - rather
singular - never found
it before in more or
less desert surroundings.
M. infantilis? *M. minor*?
both not uncommon
in same location -
• *tellegida* maybe same place
• sage brush *Malanoplas* found
far more on sage and 1
Archelimum taken from
sage on plain - others

were nearly but owing
to their extreme slenderness
could not be located.
Melanoplus brown but
like species cerci = ♀ add.
Taken on bush at top of
Mesa - app. a card.
1 Spharagnum taken in
dry stream bed also 3
Drosophila. Dark M.
Life infertile? were 2
taken high on mesa side
in bare spot near bushes
M. bowditchi top of mesa.
1 Harporhynchus foot of butte.
Some in *Microstoma* near both
sides a few *Xiph* and *Pich*
both numerous and up
nearby flats 1 *Spharag*
a few *Melanoplus* &
Microstoma - no diff
species etc. *Xiph* near all
others in *Microstoma*

A8 Forsythia Mount VII. 27

Leats along Yellowstone R.

3 *Durocladus* 2 *Talium* 3 *Metast.*

Spharagnum common also

M. fume sub in high well

several *Opuntia* *tatum* in

dry grasses and a few

Aul. repum 2 *M. Kiowa*

on grassy butte side

Miclostegia not uncommon

1 *C. nabula* 2 *T. mibangif*

2 *T. mibangif* like sp. a few

Hemiploceris and *Wormeria*

in cañon but better in

grassy bushes *M.* like minor

Stakem also *M. spectis* 2

& *Wormeria* 2 *dictyoides*

in sage *V. ... thalita*

on top of buttes in low

grass mountain like

pastures - *Ag. ...* *Comun*

also *Cordillaris* a few

Polycarabent *Talium*

Philobronia

also *Akrotites* & *Agrostis*
~~2 *Akrotites* plattii?~~

taken on bare boulder
slope under junipers.

1 *M. deglis* ♀? in open
pasture also *M. Kiowa*

and a few *Opeia* in
sageon a few *Hesperotettix*

1 *Xiphid* 1 *Uthca* & 1 *Gold*

mt. pasture *M. minor*? in upland

The larger of *Cordellana*

was taken on the more bare

slopes of the butte - 1 *Orphea*

flat near R.R. in grass.

I have noticed that there seem

to be several species of closely

allied *Melanopli*. 1st *M.*

spuris proper found in grass

and weeds and a more

ornate was found about

sage and in more arid

regions. Then *M. minor*?

found usually in open

grassy places - Very plainly
and well marked
a very close appearing sp.
is found about the sage
and is colored much
like M. sage sp. except
it is darker and more
neary. There is another
possible sp. one in a
smaller more mottled
insect almost app-
ar scelopus in appearance
found in bushes & sage.
There seem to be about
3 species very close to
M. minor? and ranging
to M. sage sp. & scelopus.
I don't know if these are
species at all but still
they look it and may
upon examination be
found to differ. The
Epilachna minor one

a slight clatter about
~~in flight usually~~
as it alights. There
is none of the typical
sage brush prairie land
here - Only sage brush
and flats and scattered
growth on better slopes
11-2 P.M. on top of buttes in
open meadow - Several
♂♂, alba beatus fr. sage
Series of Cordillarias ♂ & ♀
Aulocara beauty ♂ & 2 ♀
~~Agrostis~~ ^{Agrostis} common
Ak. coloradensis ♂ & ♀
1 Dactyloctenium pectinatum near
depression in meadow
where grew all the sage
ant 1 X ph also ✓
mestobryna and
grasses & bunches at foot
of rocky slope (all P.M.)
about 10 Crataeva seen

1 *Protobates subannulatus*²
from cage - 2 *Hedrotellus*

Taken on meadow.

1 ♂ *Trinotus tropis* *Lin. thalassica*

Taken in juniper slope

1 ♀ seen - This was one

of the warmest species &

flew quickly & swiftly

some distance. 1 ♀ *Acantus*

Taken in *nitens* meadow.

A rolling country here

rising slowly back of

the buttes and dotted

with low pines & junipers

Rock like and very beautiful

1 ♂ marked *Arctia nitens* meadow

at buttes 300 ft above town

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No. 1. Halsey, Thomas Co., Neb.
July 11, 1909. (On U. S. Forest
Reserve. The first collection
Elevation at ^{the} station, ab. 3000 feet
was done before breakfast
in some weeds at the
base of the first hills

to the south of the flood
plain of the Middle
of the Loup River.

Here in tall grass and
weeds several adult
Jomphocerus were taken
~~the~~ plant 1. and Travodes-
contia were numerous.
The sage colored immatures
on plant 1. Stenobothrus
was taken in a small
rather wet area of
tall grass. After break
fast work was taken

up in the flood plain for
a mile to the east of the
station and then up into
the sandhills. - The latter
being number 2 here.

One female Chloactis
conspersa was taken
in grassy close to the
station but lost. Eritettix
was found along Koup
River in grass, thistle
etc. Jettix id. ditto.

No. 2. Sandhills at Halsey.
About 100 - 165 ft. ^{July 11} ^{higher than first sta.}
Cicindela in low ^{to} ^{sta.}

One leg of a Udeopsylla
seen. Diapheromera
beaten out of the hill
scrub, Brachystola
hopping through the same.
Paropnema, Eritettix
and Melanoplus on
the grass and scrub.
Polvesa on bare spot.

See Phyto-geography
of Nebraska. Poind &
Clemens. in
Botanical Survey of
~~the~~ University of
Nebraska. 1899 (2nd ed. 1901-
1902)

No. 3. Flood-plain of Loup
River and lowest slopes
of the hills at Halsey,
Thomas Co., Nebraska.

July 12, '09. In tall grass
along the edge of a
small grove of deciduous
trees immediately west
of the forestry station
five males of Chloëaltis
were taken by beating.
No other specimens were
seen in the locality where
a female of this genus
slipped me yesterday
although it was very
carefully examined. The
Amphitornus was

taken in ^{poor} grass east of
house, - only one seen.

Pseudopomala on low
slope immediately s. of
house. Melanoplus and
Cnephaloides in grassy
places.

No. 4. Sandhills within $\frac{1}{2}$ m. to
the south of Halsey Duesby
Sta., Thomas Co., Neb. July 12, 09

Brachystola was taken
in sparse grass on the slopes
of the hills - two taken, none
others seen; Stipator (all seen
taken) from more grassy
and overgrown depressions
between hills: various woody
plants, some thorny and others
of various character.

Trimerotropis agrestis
found only ^{on bare sand} in blow outs,
but one adult found but
immatures numerous.

Paropomala occurred much
as Pseudopomala in
various places on the scattered
grass tufts on the hills.

Hippiscus on bare sand in
blow out - only one seen there.

Melanoplus pachardi occurred
only in blow-outs, all seen
taken. Psoloessa and Eritettix
in grassy stretches of
grass No. 2, and also in
the ~~same~~ ^{small} Psoloessa around bare
spots.

The sandhills have grass,
thistle, Yucca filamentosa,
No. 3 plant and several
woody shrubs a portion
of their covering.

No. 5. Alliance, Box
Butte Co., Nebraska.
Elevation over 4000
feet. July 14, 1909.

Collecting for a number
of hours resulted in
the capture of three adult
Orthoptera, one Stenopleura
and one Eritettix in prairie
grass land and one
Hippiscus in a bare spot
in a prairie road. Immature
Phlibostoma, Agrostettix
and Mestobrygma, while
several immature Ampit-
orhis were also taken.
Everything from this locality
in the way of Orthoptera
was secured in prairie grass
land region. Dragon-flies
were numerous near
a wet spot and several were
taken. The red and black
beetle was found only on
thistle and the gray
spotted Cantharis occurred
on plant No. 5.

100.6. Sterling, Logan Co., Colo.

Altitude 3890 feet.

July 15, 1909

In tall weeds and grass

near an irrigating ditch
Orthoptera was very scarce,
much work revealing but
one Melanoplus and two
Eri tectix.

No. 7. Sterling, Logan Co., Colo.

Sandhills, east side of valley
of South Fork of Platte River.

Elevation 4000 - 4100 feet

July 15, 1909.

These sandhills are
rolling exposing many
bare slopes and innumerable
small bare spots, the
vegetation being sage
(No. 6) with patches of
short grass and a
few other plants. A
species of Hippiscus^{montanus}
was present, six specimens
being seen and all taken

Cordillacris was very scarce, one Yersinia seen and taken (on bare sand)

Polioessa not common, immature

Paropomala numerous, clinging to grass, sage or other plants - no adults.

Holbrookia like lizard burrows under sage.

Adult Orthoptera very scarce.

Cicadaeas very scarce, one taken

One specimen of Rhipisacus contained a thread worm at least 20 inches long

No. 8. Casper, Natrona Co., Wyoming
Alt. feet. July 17, 1909.

In rather low land along the North Platte comp covered chiefly with the plants contained in envelope no 7, many immature Orthoptera

were found, but adults
were limited to numbers
of Trimerotropis viriculata
a scattering of a ~~Trimerotro-~~
~~ptis~~ Melanoplus -
one specimen of Melanoplus
bivittatus. Nothing else seen
adult. Bufo numerous, one
taken.

July 17, 1909.

(10.9) North Slope of Casper
Range, Natrona Co., Wyo.
About 8 miles distant from
Casper and about a
thousand feet higher.
At the lower edge of the
pine zone, sample No. 9.
Graphocerus was taken
only by beating a piece
of steep mountain
pasture land clothed
with a number of low
plants, some woody, with

scattered pines and out-
croppings of rock, All the
specimens of Melanoplus
were found in similar situations,
but preferably in the tallest
and most succulent
vegetation, except the
single short-winged specimen
which was taken about 200
feet lower down in a flat
meadowy spot where

Chorthippus and Camula
swarmed. Platyboterus
was found only in the
drier portions of the high
pasture. Immature
Chlocallis, Aerolophites
and Amphitarax occurred
in similar situations,
while Camula and
Chorthippus occurred
sparingly in the upper
meadows, but in

x x x x x x x

warm in the lower
moister one. Here

Cumula imatura
were by thousands.

July, 18. 09
Harrison, Sioux Co., Nbr.

A single female *Steno-*
pelmaticid was found crawling
over the boards of the porch
of the hotel toward dusk.

no. 10 July 19, 1909.

North slope of Pine Ridge,
near Prairie Dog Canyon,
Sioux Co., Nbr. Elev. approx-
~~the~~ somewhat less than
Harrison. All work was
done in short and medium
length grass land ^{between}
the foothills of Pine Ridge
- The edge of the Bad
Lands. Immature
Brachystola numerous,
Cordilucris numerous

but difficult to capture
being very swift jumpers.
The three Acropophites were
the only ones seen. Akuntetes
numerous, but swift
jumpers. Aulocara
in fair numbers and
Ayneotettix numerous.
Melanoplus not common
Hypisacae the only one
seen. Immature. Orth.
swarmed.

No. 11. Battle Mountain, east
of Hot Springs, Fall River Co.,
So. Dakota. July 21, 1909.

Elevations from 400 to 900
feet above that of Hot Spgs.
^{3750ft to 4400ft.}

The slopes of Battle Mt.
are most covered with
scattered bull pine and
interspersed with grassy
area, often benches of a
distinctly dry meadowy

type. In the lowest of
these meadows Mesost-
bregma was found to
be numerous, while Cordillaris
was scarce. Cordillaris
and Melanoplus (at least 4 species)
were pretty generally distributed,
the short-winged ♀, however, being
from near the highest point
collected on, - only one seen.

The flabellifer type was very
active. The single Desperotettix
was taken about midway between
the highest and lowest points
collected at. Gomphoceris was
chiefly high in grass land,
where the two Chlocaltis and
one Aerolophites were also
taken. Brachystola, Ageneotettix
and Aulocara were general,
the latter sparingly. Gomph.
Chenitellus general, most all
immature. Phlitostroma

general, all immature.
All species seen taken
exc. immat. Xiphidion &
pyllus. Mestobryma only
in very short grass.

No. 12 Sylvan Lake, Black
Hills, Custer Co., So. Dakota.
Alt. 6200-6300 feet. July 23, 1909.
Collecting done on the
slopes S.E. of the lake for a
distance back of about one
mile. Chlocallis found only
in grassy spots near fallen
trees, uncommon, only adult
seen taken. Dittigids and Cicindelas
in sunny spots on mica covered
road. Melanophus altitudinarius
in low plant with berries
(taken), on seedling pine, logs,
stumps and in ~~the~~ roads, -
almost all immature, only one or
two adults got away, ^{one of two} the female
captured was in a fallen

the other in grass.

tree, Heavy male *Melanoplus*
in low vegetation near
and beside lake
road. Shells from under
stones. Camnula swarmed
in immature condition by
lake side, only adult seen
captured.

No. 13. Sylvan Lake, Black
Hills, Custer Co., So. Dakota
Alt. 6200 - 6500 feet. July 24, '09

Collecting done around
the lake and at various
places on the trail to the
Needles. Nothing taken
near the Needles except
the two immat. Chloactes
which were in high grassy
spot at highest elevation.

Chorthippus in same
spot.

No. 14. Newcastle, Weston
Co., Wyoming. Elevation

4300 - 4400 feet. July 25, '09.

Collecting was done to the S.E. of
the town a distance of a half a mile
to a mile in low hills covered
very sparsely on the slopes and more
thickly in the hollows with pine (P.
scopulorum as far as I can determine).

The slopes are very stony, frequently
bare and again with

scattered sage (No. 14) and
many low cacti (Opuntia),

while near the bases ~~the~~
they are frequently quite grassy
(grass very short). In the
grassy situations Phlebotoma

was most numerous, the
majority, however, immature.

Trin. cincta wild and not
common; T. viniculata

fairly numerous in the
barren spots. Agenostellus

more partial to grass, as
was also the case with
the kiowa type Mestobryna.

M. plattii abundant all over
the slopes and easy to capture.
The two species of Melanoplus
not common & wild. Upeis
scarce - all the adults seen
taken. Cicotettix, only the
two taken seen - not particularly
wild - made a distinct
but rather low chatter.
All species seen taken.

No. 15. Sheridan, Sheridan
Co., Wyoming. July 27, 1909.
Alt. about 200-250 feet above
R. R. sta.

Collecting was done in the
rolling country east of
the station about a
mile. The slopes of these
hills around usually covered
with sparse long or short

grass, some ^{sparse} clumps of
sage brush, bare and
baked soil in some places,
stony in others, the grass
longest and most luxuriant
between the hills. Mel. packardii
& atkinsii types abundant,
the former much easier to
capture than the latter. fyllus
heard all around but not
frequently seen. Hesperotettix
not common in the adult
condition, immature more
numerous. Mitator scarce,
all seen taken. Hadrotettix
ditto, all ^{seen} taken. Aulocara
a few, the single Amphitomon
the only one seen. One
Gymphocerus alone seen
and taken - the more
luxuriant grass between
hills. Several patches of white
sage with Hypochlora immature

Billings Mount V 11. 28 - Series

ected in river flats and
along sides of buttes very
steep here. *M. femoratus*
M. altanus swarcus. *M.*
packardii, *femor-reprensus*
common. In swampy
place of ~~marsh~~ marsh
grasses a series of *Xiphid*

Archulella *Archulella*
taken from at *Neobius*
of which one was taken
immature 1 occurrence -

In short grass on level
spot near buttes found
2 *Autocara melator*
Agrostis 2 *Chrysomelid*
1 *Chrysomelid* 2 *M. minor*

What have been calling *Ther*
M. imputiles? and *M. ovata*?
is really the *spatulata*
series species *Phelobotrus*

mainly immature - the
slopes a very few
C. sabula and *Spharagium*
not uncommon also the
Acrotophila. About
sage numerous sage
Melospiza and *Myiophobus*
on steep butte side in
a sort of wild gooseberry
a number of *Spizella*
circi *Melospiza*
1 *Sceloporus* taken
on butte side and one
sage rabbit captured
Several *Hesperotettix* taken
on plain & butte side
and *Apia* in grass.

alt 4500
17 Livingston Mont VII. 29 along
yellow pine river - Beaten
from bushes near river
1 *Saxidomus* 1 *Acrydium*
In field of fairly dry

grasses - 2 Agrostoides

17 Hippuris common

30 M. minor group - very common
Panicum 1

Xiphodon, 1 Acria Melanop

1 Deschampsia 1 Absconditus

1 Pennanthus 1 Trimeris

Melanop. gr. 2 Spharagnum

3 J. monticola 2 Melator

a number Hornechloa

M. attenuata common

Met. Kiowa very "

1 Chortippus taken in

damp grasses. In the

field M. flabellifer gr

taken by considerable

search. Kiowa and Yucca

see Plant list

18 Livingston Mount 11.29

a fog bank with numerous
shattered cherty exposures
near the summit of
the south face at 5000

most of the hill was
covered with short
dry grasses - In the
M. flabellifer was very
common the not anarus
Hippiscus and M. monticola
common - The former the
more so. 1 *Z. mel. minor*
group. number *Amblypterus*
esp. at higher levels 2
Aeroboplectus - *Oxyura*
seen, *M. packardii*
very common esp. in
woods. Several *Metator*
M. Kiowa common - On
ridge of slope among
fairly scant vegetation
with tufts of (plants
kept) everywhere 10
pink leg short winged
melanoptilids taken
and 1 *Anabrus* - The
10 were taken by the dust

and most vigorous
scrub. The used
were usually found in
or near the clumps of
ground kept and were
approached usually
jumped about clumsily.
Circotellus found in
small numbers on short
outcrops.

19. East Side Boyman
mt. Hallatin Range. VII. 30
alt. mtn 7600 ft. Specimens
taken at an elevation of
6500. In a tall grass
opening in dense growth
of pine saplings. A
number of ~~Pod~~ oregonensis
1 ~~Melanocephalus~~ ¹ ~~at~~ w.

a few ~~at~~ ^{or chloacalis} ~~at~~
few short ~~at~~ nymphs.
In pine forest one
Circotellus.

20. Summit Boyuanu mtn
7600 ft. In high grass
glade at top ^{east} 1 m. *Stelidrium*
a few *Drosophila* and
Podisma - ^{1 *Drosophila*} *Orthop* scarce.
On bare very steep slopes
with occasional conifers
a series of *M. montanus*?
was taken only by hard
and long searching -
Phricotetis also seen
& taken. *Drosophila*
occasional - The sp.
most commonly met
here. A few *Aphidius*
also taken. Lower on
slopes dotted with narrow
sage bushes & *Artemisia*
alt about 7000. One
Crematogaster nudulatus?
taken also at about
7000 ft on ledge of
rocks.

The only mountain? of an
very hard to catch
They always spring down
well in a succession
of leaps and inches
headed off usually
find some tangle in
which to hide. The
Platypteryx was taken
in same location.

The Amphispiza shown
by wear that they
have been on wing
a long time - Spring
Species? The black
winged Cuckoo is
the most solitary
of the species met
and was always
seen alone.
1 m. triverti taken from
fir into which it
had flown.

21 *M. montanum*? found more
plentifully on slopes bare
etc. occasional bushes
on west slope alt
6000-6500 ft. a few *rumex*

Beckhamia *Homophocerus*
etc. *latum* *Podisium* in
small nos in weedy
places - in typical
Benedictian pasture
beside *aspen* -

Camunula common
2 *Chorthippus* (many *grasses*)
M. atlaris 1 *M. stitidum*
in *aspen* 1 *Hippocentrus*
2 others of this species
were taken on *white*
slopes among *low bush*
the ♂ flew *signa*. The ♀s
were *by* *reave* they
could hardly *jump*.

22 Garrison Mount VII. 31

In marsh grasses
many weevils & 2 weaver
Chorthippus. On slopes
of rock in front of station.
P. circotettix undulatus?
M. athanus common
about station. On
rolling hillsides
above bluffs covered
with prairie grass
and rather bare in
spots. *Circotettix*
carolinicus & *Hespericus*
common - *C. c.* local
and found only about
one hillside. 2
bradynotus taken - 2
horvathii on bare
spot. *Sci. M. unguis*?
very common (the most)
all other species were
found in grass

land esp. on hill
sides. Green *upland*
taken in one small
area. Same as *C. carlin*
also 2 *upland* *Stenodytes*
taken there. *Cylocaba*
in bare places. *Hemiphysalis*
common in the advent
grasses. Long search
was needed to get the
2 *Byad* & the
series of green *upland*
1 ♀ *Phalot* taken
a very satisfactory collecting
place about 300 ft - above
R.R.

23 Missoula Mont VII. 31

On rolling steep hills
covered with very dry
grass - Myrmica
m. atlanis in droves
w occasional adults
On path 17. cyanipes
flew up with great
speed but alit near
by & was taken.

Heppius m. vittatus
in street of town -

24 Paradise Mont VIII. 31

In fields and edge of
forest M. atlanis myrmica
swarm in myriads and
mature are abundant.
On edge of forest took
a few acrydium on
low clover and 1
of Dawson's Beating
Beating in field

took *Aulocara ellioti*
M. minor? & *M. flabellifera*?
M. punctatus not uncommon
in forest. *M. minor*? not
scarce in bushes and
a good species of *Pydopoda*
taken in bunch grass in
pine forest - local. The
♀ were usually up in the
grass while the males were
often found sitting on
the ground - Stridulation
quite something like
Chorthippus.

25 Sand Point VIII. 2 Idaho -
11 *Anabrus* like taken in
a low tangle of raspberry
vines. Thistles growing
about burned logs and
stumps in brush. The
♂ were stridulating the
sound very much like

(Anabrus apokrus RUF)

xiphioides fasciatus -
Very faint for so
large an insect. All
the specimens were
found crawling about
breadths of wood. Not
as vigorous as those
taken in Yellowstone park
and ^{apparently} not near
by Nolan's ⁱⁿ ^{the} ^{vicinity} of
dine. In Cicotilla very
very plentiful in streets
and grass but especially
so in ^{the} ^{vicinity} ^{of} ^{the} ^{stairway}
light and ⁱⁿ ^{the} ^{stairway} this
species could not be
distinguished from
over ^{the} ^{cellar}. A few
in ^{the} ^{sub} ¹ ⁱⁿ ^{the} ^{attain}
taken in ^{the} ^{brick} ^{and}
grass. ¹ ⁱⁿ ^{the} ^{dry}
Earth in ^{the} ^{brick} ^{and} ^{the} ^{cellar}
fairly plentiful locally

M. brattaker and *M.*
~~*associatus*~~ found in
same place as *Acabrus*?
Latter species only taken
by prolonged searching
Chorthippus taken in
grasses near woods. 1
Hemiteles? taken in brake
epidoptera

26 Hillyard Wash. Aug 3.

alt. 2000 ft. On rather
bare plain of sparse
grasses. *M. attenuis*
abundant - the most plentiful
species. *D. spurcalis* not
quite common - fairly
local in distribution.
Aulocara found in few
spots everywhere on the
plain - they use both
salt power and wings
and even the heavy ♀s
are rather alert.

37. melanopt. sp. 2 taken

○ a very few *C. pellucida*

Sarphina *fulviflora*

Melanopterus like

parkardi + *pinus* &

flies vigorously taken

A single *T. omis* group

dark gray and a

few *Hippis* taken.

D. spureata stridulation

○ consists of a crackling

irregular noise usually

made most loudly

at the end of their flight

The rustling of their wings

is very distinct.

27 Little Baldy Hill Aug 3, State of
Wash. 117° 20' Long 47° 42' N. Alt 2600

○ On summit in grass
along edge of oat field where
a few rose bushes and young
trees were growing -

Amphibromus common - The
of most plants. *M. apertus*

Common | Chertkoff Oregon
1 *Ascu. montana* 2 detritids
a few *Aulocera* taken.

The *Ascu. plus* was
found in grasses ~~near~~
~~low trees~~ where they were
a little more heavy than
usual - detritids & *Ascu.*

The same place.
An almost bare
side and in a rather
bar covered with a
forest of pines and a
few ~~few~~ spruce. The
series of *T. cyampes* sp.
was taken as well as
in a rather bare field
on the hillside. The
T. fallax species were
taken all on pine
covered steep slopes.

of the hill at about
2500 ft - 2 on absolutely
bare middle stream
ground and the rest
in pine woods undergrowth
where no grasses grew.
The single Cohort Oregon
was taken in the only
way of wire like grass
found here. *T. cyanipes*
sp. was taken alt 2100
to 2600 ft. Amphitornus
in field above meadows alt
2200 - 2600 ft. But in same
range the *T. fallax* sp.
makes quite a clatter
at times in flight. The
Hippicus & *T. cyanipes* both
make a distinct loud
whirr at times esp-
when taking wings.

28. Pasco, Washington
~~July~~ August 4, 1909.

Collecting carried on in
sage brush area a short
distance back from the east
bank of the Columbia River.
In ~~most~~^{all} places the soil
was very dry and loose.
Coryzoe and the various
species of Trimerotropis
were found on the bare
patches between the sage
brushes. The T. bilobata
type plentiful, Coryzoe
the most numerous
species in great numbers
in sand back from the
river. The other species of
Trimerotropis not very
plentiful, but two
specimens of the smaller
species seen. Three

Uedalcorviter curvica
and a few Melanoptera
^(page) sp. and Periprotetix
seen and taken on
sage brush. Three Periprotetix
seen and taken on bush
(no. 28) of which specimen
was preserved. Mel. sp.
(page sp.) acted very
much like Ligurotettix
concealing itself in a
bush and being very
hard to capture, also
alert. Melanoptera
pachystoma group ^{fairly} plentiful
Agonotettix plentiful but
hard to capture. One
detected captured on
the sage brush.

29 Manantash Ridge 1800-2500
SW of Ellensburg Wash VIII. 5
On Plain 1600 ft alt. 1901

1 *Asplenium* 1 *Agavecotyle*
~~*Cousoa* w commonest~~

S. punctulata plentiful
Very little time taken
here - On slopes of
ridge. Trimm. since blue
leg sp in fair num.
above on edge of
tops among volcanic
stones with scant
vegetation. *Asplenium*
plentiful locally.
Brunneria very
scarce usually taken
single & active great
labor to get series.
Dactylid fairly plentiful
scattered over upper
slopes among broad
leaf plants - they
grow vigorously
wherever will when
cleared continuing

Maps for structures
about or ~~thirty~~
ft. from starting
point. When they
indicate some kind
of vegetation. Alocas
plentiful on upper
slopes - I got a day
to take active but
dark when it is
attracted at them
and then opening when
it has passed.
A very few M. packed
found on slopes.
New Melator found
on upper slopes and
plentiful but rather
well distributed.
The Melanophles minor?
on tabac. Here a very
few M. allans were
on lowest slope.

1 *Cicottella* *suppressa*
seen and taken

A few *Ampelitermus*
and 2 *Titanocera* seen
taken on upper slopes
also 2 or 3 *Hippocis*
more common of upper layer

of 29

30 Stampede King Co. Wash
2800 ft. *Aphodius* taken
under stone while clearing
camp in afternoon - Seemed
asleep - wouldn't jump - when
laid on back stayed so -
Insect taken in fir forest
when collecting wood also
sluggish. Hard work in
forest & brush only revealed
2 or 3 *Cicottella* in brush
and 3 *Caenocera* in
grass growing in cinder
beside r.a. track.

The telegram operator tells
me that the Aphodids
come in often at night
& hop about rooms rather
actively. I have seen
about 8 already this
morning.

VIII. 6

31. 10² 3m Aphodids taken
all in hiding under stones
on steep slopes of Truga
forest. Watching these we
found that when disturbed
they would jump, usually
alighting on their back or
side and with their legs
tucked up closely would
remain motionless. In
this position their ^{rusty} ~~white~~ ^{parts}
^{underparts} and legs
resembled perfectly the
growing shoots of plants
under these stones and

so their actions must
be of great service to
them in eluding their
enemies. Last evening
immediately after sunset
these insects began their
song. It is a faint
elusive note repeated
much like that of
Sundberia but is much
less harsh and ⁹⁰ much
higher pitch approaching
in timbre the song of
Decanthis - On every
side this song was heard
and one insect was
usually answering
another not distant
which made location
of the sound almost
impossible owing to its
elusive quality. By
aid of an ~~electric~~ ~~flu~~

Plants grew in spots
was very plentiful
and 2 smaller sp. were
taken - 2 former subrun
taken very near forest.
In one patch of wild
strawberry 1 ♀ *podisma*
was captured - Long &
diligent search failed
completely in discovering
other specimens of
this species. Amount
fairly plentiful -

34 Centralia Wash. VIII. 8
Rolling hills with fir forest
and grasses & bruses -
Ideal appearing but !!
2 *Cristellus* & *Camilla* -
Nothing interesting

35 In bull brush & brakes
at Newaukum Lewis Wash
VIII. 8 1924 *Leucostictus* 1 *Xiphidion*

36 East side of Council Crest
alt 900-1000 ft. Portland
Oregon. ^{VIII. 9} In dense growth
of brakes and grasses on
banked slope a series of
Chorthippus & *M. ascaurus*?
was taken not easily. The
latter was found in very
small no. except in one
bunch of ground sally
where a series was
taken 2 *Cricotellix* &
1 *S. cyanipes* on bare spots.

37 Council Crest alt 900 ft.
Portland Ore VIII 9 In field
of dry rough grasses -
Chorthippus the commonest
plentiful & placidus
taken only by rather
long search. 2 *M. fuscus*
seen. *M. ascaurus*? found
common along the

(1) *Acantthus* mature from
grasses in this field)
edge of the field near
the forest. *Bumula*
sim. - *Meduba* taken
among brakes on fir
clad mountain side
Ground exactly same
color as insect. I heard
producing a sharp
sik'-sik'-sik'-sik'
at intervals. Not taken.

38 Mt Labor, Multnomah
Co. Ore. Alt. 300-400 VIII. 9

The specimens of *Melampus*
taken here were secured in
a variety of environments
- in tall grass, in the open,
under fir and deciduous
trees on almost bare
ground and in weedy
spots. The *Xiphidium*
was in grassy situations.

39 Clackamas - Co Same name
Ore VIII. 89 3 M. ascensus?

1 Xiph. taken - Train halt
In high grasses.

40 Turner, Marion Co, Ore -
VIII. 89 3 M. ascensus? Taken
in high grasses - Train
halt. One of these please
examine carefully.

42 West Albany Benton Co Oreg
VIII. 10. alt. 300-350 ft. Took

series of *Coniozoa* in bare stubble
field where the species was
very plentiful 3 *M. ascensus*?
straw colored taken there also
along road *Camecula*, *Disostea*
M. pumila and *S. spect.* common.
On hillside of bare grasses
w. clumps of hazel and
scrub oaks - many
pine stumps *M. pumila* & *Coniozoa*
M. attenuata *M. attenuata* or small
found in grasses in fair
noo the latter fairly local
1 *Beccant californicus* *Dryopteris*
taken also a number *Becc* -
Beccant all from hazel
and scrub oaks *S. cyanipes*
fairly common *Arctotelia*
in burnt place at top
of hill. *Aspl. in* stubble
grass field and low hillside

43 Albany Fine Co Ore VIII. 10
Decautus swarmed

in tall sticky weeds
with yellow flowers growing
in dry grassy field where
only *M. fumeus* sub *laevus*
were plentiful.

Douglas County, Alt-800-~~82~~¹⁰⁰⁰ ft

44 Dunde, Calapooia mts Ore

VIII 10 On hillside covered

with scrub oaks abounding
with occasional firs left.

Scant grasses *M. validus*?

v. common - Especially in
and among ^{diag.} pine boughs
and tufts *M. altaris* var.

sp. also common *M. altaris*

and few not also found

Aspha not uncommon

esp. near station on

pine bark Three *Arctost*

taken also 2 at top of

hill in fir brush.

Chorthippus common
both on hillside in
forest & meadow & in
valley - The commonest
Many gaudy forms
noticed. A few *Oecanthus*
& *Xiphidion* taken from
dry meadow grasses.
M. validus? is ~~very~~
active and clings very
tenaciously

45 Divide Lane Co. Ore VIII 11
Alt 800 ft In grassy valley
covered with low clumps
of oak sprouts In grasses
Acrydum & *Chorthippus*
all taken also *Aephus*
Melanoplus validus? *Xypha*
Oecanthus all taken There
were all collected
before 8 A.M. in the morning
fog. The single male

Aglaothorax was taken
after dark on the
night of VIII.10 - It was
stridulating in brackets
in the nearby scrub oak
forest in which we caught.
It was taken with the aid
of a flash lamp and was
the only individual heard
although we were listening
intently for them all
evening - The song
was - a z ũ ũ ũ ũ a
z ũ ũ ũ ũ a z ũ ũ ũ ũ a z
ũ ũ ũ ũ - kept up
constantly for some time

46

Durde, Lane Co Oregon VIII.11
Calapooia mts Alt 1400-1600
ft East from station
on steep hill side and
especially near summit.
Podisus polita taken on

scrub oaks hazel and a
sort of wild gooseberry -
Seemed to prefer hazel -
The ^{antennae} nabelets were almost
identical to *P. glacialis* -
Almost every specimen
was found ^{summing}
itself on the leaves
of the bush usually
about 1/2 way to top
in sunniest spots
They were alert and
quite wary but seemed
to be overconfident for
often they would wait
just a second too long.

Winged Podisma the
scarcest species of all
the Melanopli taken -

The males were found
on the hillside in scrub
vegetation but the majority
were captured in a grassy

sunney gradual slope
at the summit? - It
took the hour extremely
long to find *P. polita*
but after the exact
habitat was found the
species was taken slowly
but constantly however
this other host some other
found proved very scarce
and only persistent
searching for a long
time netted the specimens
Green Cicadas? taken
in ^{almost} dense meadow-like
slope about the thistles and
raspberry vines - The ♀s
were singing constantly
a zip zip zip zip zip -
but the sound was not
loud and was found to
be hard to locate.

Up here *Cicotettix*
was fairly common in
the open spaces - *Cerydops*
Orthippus the commonest

but ~~up~~ were *M. validus*
as well as on the steeper
slopes was almost equally
as common - everywhere.

M. altaris am. sp. we have
about decided *M. devastator*
was ^{fairly} plentiful also. ~~It~~ *M. altaris*
only occasional. A very
few *Leptia* & *J. yampipes*
seen. 2 ♀ *Agrasthorax*

were taken 1 under bush
on steep slope and the
other under a bush in the
almost meadow like
slope. They crawl and
hop about clumsily until
alarmed when they are
able to spring vigorously.

also 1 *Aerydium* a few *Xiph*
& *Acanthus* all summer
swallow. *Podisma* winged
♂ & ♀ very active and astute
quick - always on ground.

47 Drain Douglas Co. Ore
VIII. 11. *M. devastator*

very abundant on hillside
of short dry grass - There
S. venustum common -
Camula m. attaris *S.*
cyaneipes also - nothing
striking - In bushes on
hillside nothing found
but yellow jacket nest!

48 Mendocino Douglas Co. Ore VIII. 12
alt. 1500-1900. In forested valley
of Rogue River mts. A ^{very} ^{thick} ^{growth}
growth of tall ^{fir} with typical
forest undergrowth. In the
small openings in this forest
two shortwinged melanopli
were found - One near
M. valdens? was taken in
fair nos. by careful
search - they were not
plentiful. The other
species like the winged

Wide *Polymia* was scarce
and both males & ♀
were very active. even in
the forest both of these
species were found very
scarce in the heaviest
undergrowth - In like
situations, *Aglaothorax* was
found usually in twigs
or near a stump and
not at all difficult
to take. *Arctostellus* was
occasional in the logging
road where also a very
few *S. semistriatus* were
found. *Chorthippus*
was in fair numbers in
the largest opening in
the forest (about 50 ft
across). Two colonies
of *Oxypterus* were
found in the logs and
all were taken.

They were only found
in the logs where
the wood was soggy
and the bark stripped
easily - How directly
under the bark and
in the burrowing in
the sap wood the same
was taken - They eat
their way through the
sap wood preferring
the places where it
is soggy and decayed.
In two fir stumps we
found *Marsa* - They
were under the bark
and in ^{the} holes of borers
in the sap wood - They
were found in the
slightly decayed
portions - Where their
hiding place was
exposed some would

(Lathrop to Cardell)

remain motionless
while there would
pass boldly about and
then as suddenly be
propelled west so that
they were about impossible
to follow and their coming
made them simply
unfathomable on the ground
in this way several escaped.

49 Siskiyou, Jackson Co. Ore. VII. 13

In Siskiyou Mts. At 4100 ft
on crushed rocks of R.R. bank
near *S. swainsoni* & *S. venustum* community

a mass of *Circulidius* mottled
sp. *C. suffusus* (Probably
S. fallax) *S. cyanipes* and
the common *S. ...*

As it was late
in afternoon *Circulidius* were
scared up and chattered by
little in their short flights.

alt 4200-5000 in Truly
Canadian forest - Took

1 *T. weberi*? Several *T.*
fallax, *T. cyaneipes* and
2 heavy ♀ *Melanoplus*.

alt 5000-5600 In forest
of scattered pine & alpine
hemlock - typical Canadian
and Hudsonian mixed
In alpine undergrowth

Common sh. w. *Melanoplus*
circ ~~✓~~ ^(abundant) and *scitator* sh
w. sp. circ ~~✓~~ - very
plentiful the latter the
most so. A few *Chortuffa*
and several *Urocalis*
The latter year dead
branches especially and
most active, 1 *Dactylid*
and under the trees
on the pine needles
a number of *Neodeba*
and a few *striae*

color sh. w. Melanoplus
sericeus P. T. fallax
& cyaneipes in fair nos.
alt 5600-5800 on treeless
summit bald of purely
Hudsonian - T. Kochelki?
common, small colony
of w. pale Cammilla,
quite a few of 2 common
sh. w. melanoplus, T.
fallax. Several M.
devastator 2 Klocaltis.
arthoptera by far the
most plentiful where
Hudsonian flora first
appears at about 5000.

50 Mt Shasta. Siskiyou Co. Cal.
VIII. 14. At timber line 5000 ft.

On plain of volcanic ash
and pumice covered by a
scant growth of Hudsonian
grasses and plants we

found *Bradynastes plantyns*
and although there
were many nymphs the
great majority were adult.
many were found in
cortice. They resemble ones
think of toads hopping
leisurely about with
their staring appearance.
The only other species
to be found here was
Bruchia shastana -
nymphs were fairly
numerous but the
series of adults was
taken only by close
and protracted search.
They are vigorous and
alert - most were
found on the small
areas where only the
grass ~~grows~~ grows grew.

51 Mt. Shasta Alt. 6500

In a volcanic outcrop of
very rough and broken
rock a series of *Circotellix*
was taken - nowhere else
was this species seen.
A few *Ch. rubicundus*
were taken here also.
A few *L. fallax* were
found on the bare
ground under the
conifers. *C.* was clattering
loudly when we passed
in the morning but
at 3:30 P.M. they were
silent and were
resting on the face
of the rocks toward
the sun. The forest
grows there to ^{twelve} ~~ten~~ feet
was bare of almost all
undergrowth only *L. fallax* seen

52 Mt. Inasta alt. 5500
in a grassy spot near
a stream at a short
distance from the trail
Hippiscus, sp. w. Melanopli
I. cyaneus I. Koebeli? ^{fallax}
were found "quite good
numbers. Quite a
colony of Hippiscus was
there but they scattered
all at once and some
time was needed to
gather the series. M.
was everywhere in the
grasses. In some
low heavy undergrowth,
several Medusa were
seen while in a bush
of which we have kept
a sample a large
Anabus-like dactylid
was found. Careful
search resulted in our
getting the series.

the Hymenoptera. flew for
a long distance when
they took wing. One
specimen of *Sulphura*?
in this lot was taken
in the chaparral at
about 4500 ft.

53 ~~Siskiyou Co.~~ Siskiyou Co.
Sisson Cal. VIII. 15 In meadow
grass near stream. 2 sp.
Piphrion found brown
sp. not common. 1 *Chortippa*
M. found in fair no. M.
destructor present. On
sandy bare ground in
chaparral *Onychia* common
a few *S. nobilis*? seen. 1.
fulva present. 2 specimens
of *S. oculatophis* were
taken on rock boulders
near Sugar Loaf none
others seen. *Cannula*
swarms in grass at Sisson

54 Tehama Tehama Co. Cal VIII. 16
Sh wing melanopterus

plentiful in weedy fields.
1 Decaptes 1 ~~Symphyla~~
a few Cammela. T. vicul
in bare spots common.
M. devastator in small
moss in wheat stubble.

55 Teal Solano Co Cal VIII. 16
large Sh wing melanopt.
common in marsh.
3 Taken

manzanita Co.
56 Mt. San Jacinto Cal. VIII. 17.
Alt: 800 ft. At upper limit
of dry oat-like grass on
hills. M. devastator very
plentiful a few S. venustum
Small Sh in melanopt.
Taken on green small
leaf brush near low
chaparral.

57. Mt. Sausalpais VIII. 17

Specimens taken in
grasses with scattered
low green chaparral
at 1100 ft. two sp. mel.
sh. w. - *Trimerotropis*
had worked in the
thick low chaparral
from 1100 - 1500 ft. The
younger in open spots
and in the tops of
bushes - *L. thalassica*
has the habit of
alighting in the top
twigs. Males usually
taken from *maquis*
Very vigorous and
active

58 Mt. Sausalpais
VIII. 17 Alt. 2586 - 1500
L. thalassica were found
in more no than

elsewhere also dark
T. cyaniceps. 1 large
On W I. Melanof taken
in weeds near summit
2 *Decatulus* when taken
by beating from *Maryants*
as also the *Oporea*
mostly at about 2400 ft.
1 *S. acustica* at 2400 ft.
Sp. very near *Thalassia*
was very common all
along RR fr 1000 to top
but only 2 or 3 were taken
as we didn't visit its
Summit very much

59 T 5360. San Miguel Hills
San Francisco Co. Cal. VIII. 19
High gale and fog made
collecting very difficult
Aspha some common
on bare slopes along
road at 800 ft 324

w large melanophus
taken there and a
few Truncat sp. among
reddish rock fragments
which color the lower
in grasses all short
were taken and
in low green weeds
or straws - see ch. w.
melanophus was found

Below at about 600
ft in a quarry. The
series of ^{oxidizing} Truncat was
taken among rock
fragments. See description
almost everywhere

Sept 11 63 Montana Co.
60 T 55 0 Del Monte Cal VIII. 20
Taken on shore side of sand
dunes in low scattered bushes
and grasses - yellow war
found weed which seems
to be a common one
in wet and drier.

1 sh w. Katydid flew up on
low green brush. Very
few *Conoza* - *Microtes*
common in bare spots.
1 *Camula* seen. Hesperid
sh w. seen in this section
a little less scarce
than anywhere else.
M. bowditchi? On sage like
bushes. *Mel.* Heavy sh w
common in grasses. $\frac{5590}{30}$
5720

61 T 5590 Del Norte - In low
dry grass & yellow flowered
weed 1 *D. sparsata* *Diaperis*
seen sh w. *Mel.* in many large
sh w. seen. In grass sh w.
Mel. occasional esp in bare
spots. *Sarcophaga* in few not
Hesperid sh w. scarce.
Microtes common in bare
spots. *Dactylid* very common
1 *Stenotarsus* on ground. Or

very few Corozoa. - *Swamus*
Orthoptera.

Del Monte 8/10/50
62T 5905 On top of beach
dunes 30 ft high covered
w low bushes and scattered
grasses - note coloration -
Back of dunes low oaks and
pines on inside of dunes -
Microtus the most plentiful
In gray soil on grassy
bushes

Del Monte 8/10/50
63T 5925 Specimens taken in
Mauzanta and other typical
Jamaican chagarral - *Hesperia*
just as on Jamaican - 1
Cape bird *Trinotrochus* taken
on woods path - *T. Thalassica*
in Mauzanta In grass
at wood not common
taken on grassy bushes
1 M. found taken in
chagarral

Specimens of yellow, low gray
mosses kept

~~647-965~~

at Del Norte only
one area of mosses

and breast high chaparral
was found to the east
of the town and covering
several hundred yards
in every direction

In the places where
the short dry grasses
grew I found *Pithecolobium*
swainsonii - especially
was this so where yellow
flower sticky weed grew -
I prepared slight defences

low bushes ^{dotted the gray} and grass
slopes back of the dunes
revealed especially the *Pithecolobium*
in the ground gray leaf
plant I noted in green
bush. As the size of
green most abundant
there *Chamaecrista* was
seen in more on the dunes

San Juan Chiapa VIII: 21

6475965 Paso Robles Hot Spc.
Orthop. not common anywhere

The most plentiful sp. saw-
yellowish to red. in low dry
grass on hillside alt 750-900
Isolocera scarce on flat
of same grass near town
a few on *divaricator* and
S. venustum in both of
these localities also. A

scarce yellow wing gray
Trimerotropis in streets
near town and on bare
ground - *I. viuculata* seen
up in hills alt. 900-1100
to west of town about 1 mile
in high chaparral growing
scatteredly to bare ground
between *Indica* & *Tahiti*

I. thalassica? here in
small nos. A bluish
wing gray *Trimerotropis*
occasional to well distributed

of which a series was
taken - a shy species -
but always alights on
bare ground unlike *T.*
thalassica? Here also
1 gorgeous *Leprus* was
taken on bare ground
but no others could be
discovered. *S. venustum* here
also. Notice the great
variation in the wing
band of the scarcer
gray *trimerotropis*.

Sta Barbara Cal.

65 T 6040 Santa Barbara Cal.

3 *Hyllus* taken in grass at
night - VII. 21

July 21
About Santa Barbara in fields
Only a few *vinculata*, *venustum*
2 in 1 place *Caecula* -
On hillside from 50 to 350 ft
where a great tangle grew of
bushes weeds and night

low grasses. 3 *Decticus*
Taken these were alert
and terrific jumpers
springing from bush
to bush in long leaps.
M. bowditchi plentiful
but very shy and
marvelously quick in
movements found in
bushes and also in
grasses. *Napaia* found
only in grasses in the
bush tangle - 2 also
large *Metanoplius* taken
here also. *Pogonochora* *umata*
were adult in one place
in grass along R.R.
1 ♀ *gryllus* under stone
they are noisy and
keep up a racket
day and night.
T. vuc californica? along
R.R. on stony ground.

T6100

66 San Luis Obispo VIII. 21

In weedy grass field

(harvested) Shw. Inel, not
common - *M. devastator*
even less so - 10 spec. ^{STO}

T6105

67 Montalvo, Ventura Co VIII. 23

Wetland - cultivated land

maculata only - In dry
sandy river bed 1 mi. fr

Two series of *Colletes*
taken and a very few
Conoza seen

T6145

T 6210

69 specimens

68. San Juan, Los Angeles
Co., Cal. Alt. 1160 feet.

August 22, 1909. In ~~an~~

areas of bush woods (flowering)
along the dry wash of the

River collecting was
carried on for several hours.

In the bushes of this particular
plant Desperotettix was numerous,
while ~~the~~ Melanoplus bowditchi

form was scarce and
hard to take in some of the

surroundings. Mel devastat^{atm}
was common in tall dry

out-like grass, while Oedal-
corotus was common in

a sort of low sweet-smelling
tanned, occasionally flying

into a tall white sage for
refuge. Herotimnea

sansoureae occurred

in the tanned and in low
out-like grass, while Coryza

was seen but once and
then in much the same

surroundings as Herotium

Polycrossa was not common
in low water level grass

One collected beaten from
brush

T6235

spec 25

1 B. Bakerfield, Kern
Co., California. August
20, 1909. Elev. 415 feet.

Collecting was done in a
tract of scattered bushes
on a plant of which a
sample was taken and
which averaged three feet
in height. The bushes were
placed much as Covillea
is placed and the patches
of bare packed, dry shade
between varied in size.
On the bushes Melanoplus
and Oreolopus occurred,
Stagnomantes and Litan-
entra also being swept off
of it. Both species of Dremer-
otrops, the Agavecotettix
and the Trepidulus
occurred in the bare patches.
The last the commonest -
all very agile - hard to
capture

Los Angeles Co.

69 T 6235 Verdugo V. Hills Cal.
VIII-23 Alt. 750-900 ft

Specimens taken on arid
hillside covered by great
high chaparral. A very
few *Syrphus* seen - 3 *Mormo*
taken in bushes. *Pachyura*
not plentiful. *S. neoharctica*
a few seen. 2 sp. *St. W. H. C.*
found both very scarce
Anthomyia cinerea?
common in bushes but
most alert and shy.
The most plentiful of the
S. picta on hillside in fair
nos. *S. armistana* in canon
not common. *S. arida* & *M.*
deceptor only sp. seen in
fields at foot of auto.

VIII-23 Los Angeles Co.

70 T 6275 Inyo Co. Cal. Alt.
434 ft. Canyon in fair nos
in sandy field. *S. picta*

M. ducati & *M. micrus* also
present in dry weed field
Nothing nearly plentiful

Los Angeles Co-

71 T 6290 Roscoe, Jayunga Wash

VIII. 23 Alt. 825 ft. On dry
sand in wash *J. californica*
scattered not common.

In short dry grasses

J. obtusata very local
and only found in two
small spots. *Polocosa*

very plentiful. The most abun-

M. micrus? common in
bushes but most wary.

1 Beetleid scatered from green
bush and a very few

Hemipterids found there.

In another bush with

dry pink white flowers

very brilliant *C. fovea*

seemed not uncommon

Lymantria *Stagmomorpha*

found there also.

Drosophila local common in
low dry grasses and short
sagebrush - On this walk
covered w. scattered desert
bushes; widely near and
century plants. *Orithya* was
very disappointingly scarce.
A more ideal appearing beetle
could not have been imagined.

72 T 6360 *Cyna* Cal. IX 1
San Bernardino Co.
Train stop beside R.R.

Agnostus *Drosophila*
very plentiful in short
desert weed beside R.R.
I. cincta not uncommon.
Smallest *I. cincta* taken
at Teastalk Cal. IX 1

San Bernardino Co.

73 T 6370 *Lyons* Cal. IX 1 Taken
on greasewood slopes covered
with volcanic fragments.
Figuroletta very common
on greasewood *Boottella* common

on same bush 1 Homulica

On desert bush, one-

greyish low round. 1 ♀

Pesticid, Diactinella ^{common} 1

Parabacillus - On fragment

volcanic quite a few

Syrticola always found

single and well feathered

Hirastus Judas not

uncommon. Parasomata

in bunches of high grass

H. minimum scarce in sand

at foot of hill. In sand also

L. oviculata & L. cinclis

1 Stagnom caught flying

across desert vigorously.

Aphid on foothills in

volcanic fragments.

Alt. 2800 - 3000 ft.

~~1~~ Teproc

1 ♀ taken on grass

plain Long Melanoplus

on greasewood.

74T6465 Lyons Cal. In sandy
area of sparse dry weeds
and grasses - H. minimum
fairly plentiful very local
M. longop. on green
weeds occasional. J.
cincta not very plentiful
Parapomala occasional
in grasses. Boottia
in bordering greasewood
bushes. 1 Dryllus
found beneath in P. M.

75T6550 Incline Co. Nev.
near Lyons Cal. In foothills
bordering into McEllough
Range. IX 1. Alt. 3000-3800 ft.
High up on bare volcanic
fragments J. cyanipes
found small colony
on Alopecurus arphica and
Lupinus occasional and
3 hemat sitaricentria

Parapomoga in grasses
on nutricle - 1 seen

bushes of steep arroyo -
Procerotellus in grasses
Spring bush - Very shy
very scarce very vigorous

Thalassidroma found
in grass bush wood in
same location in fair
nos - Almost the most

elusive of I have
seen taken and the
most powerful jumper
holding in the bulb and
then springing far
out over the rocks it

was most difficult to
take - 1 Honulka and
Procerotellus fairly common

on greasewood. 1
found cricket at top
under stone - Beilsch
gr at alt 3500-3700 ft.

Las Vegas IX 1 59

76T6585 *Mytilus* apparent
~~4 sp. taken at lights~~

also 1 *Conozoa* 1 *T. wine*
1 *Stagnomantis* 1 *Asphondylia*
Mytilus very fairly
common on walls
on which light was
shining - All others
taken in same location

T 6620

T 6630

Specimen 9

No. 2 B Echo Mountain
San Gabriel Mts., Los
Angeles Co., Cal. Elev.

²²⁵⁰
2250 - 3200 feet August 24, '09
The single Normilia was
taken near the greatest
elevation and was beaten
from bush ^(sample taken) near the greatest
elevation - no others seen.

The Melanophus was taken
at about 2500 feet. The
Lactista frequented bare
spot all the way down.
Minea on bush, same sp.
as Normilia.

T 6710

Spec. 82.

No 3 B. Strawberry Valley San
Jacinto Mts., Riverside Co., Cal
Elev 5400 - 5500 feet Aug. 26, '09

Trimerotropis common
everywhere in numerous
color phases, two radically
different types being often

taken in the same environ-
ment, some specimens,
however, as the speckled under-
sideals being wonderfully
protected when on the grassy
areas. The two species of
Malanoptus numerous but
hard to capture, found on
bare gravelly areas between
patches of low plants, on or
near dead logs and
fragments of decayed wood
and in the low plant growth.
But one Umpetorinus and
two Pitaneutrea seen, the
latter running through ^{dead} leaves.
The single Pitaneutrea was
jumping among dead oak
leaves and pine needles.
All collecting done under
or in places and open
spaces between the pines
and oaks. Umpetorinus only
on mangroves - some taken.

T 6725

Spec 13

No. 4 B Upper Strawberry
Valley, San Jacinto Mts.,

Riverside Co., Cal. 6500 -
7500 feet.

Aug. 27, '09. *Cratichneumon* found
at town elevation on bare
soil of decomposed granite.

Mesochorus ^{sp. nov.} *tristis* of which
sample was taken. *Dimeris*
tropis on bare spots. *Melan-*
opus on bush. Clark Co. -
California

all 2026 ft.

TTT 6725 Las Vegas crew.

B: 2 Specimens collected along
stream north of town. In
green alkali grasses *Arphulilla*
common. *Apera* scarce in
places - at stream bank
Paratete and *rimobius*.
A few *Conozoa* in narrow
grass near R.R. also
occasional *Parafonala*.
Dublopl very plentiful in
spiny desert bush - 1

~~Homophila~~ on ground in
same place - 1 ♀ *Silant*
in alkali grasses.

Tripidulus not uncommon
on dry earth between
desert bush. *Hesperotellus*
common in green bush.
1 *M. yarrowi*? taken on
stone wall of station.
1 *Quaenus sinuat* swept
from alkali grass ^{near}

Las Vegas Tex.

78T 6875 In green woods about
3 ft high on edge of town. *Hesperot*
very plentiful in *flavida* common
M. yarrowi? Very scarce! *M. allan*,
1 *sinuat* *Stagnom.* - On bare
white alkali flat with very
low scattered desert bush -
Tripidulus very common
Sceloporus also. *Trimerotropis*
beauty not plentiful scattered
Water made a light

more with their wings
return in flight 27.
maculata seen. *Anconia*
common in widely
scattered colonies. The
Spina & *Ophidella*. [*Synoteta*
very abundant in desert
bush in a few localities]
were taken in alkali grass
along stream on this & Mr.
Spina & some courtship
stridulating - a faint
high note. *Comptosia* in
dry waste field. These
were all taken about the
edge of the town.

79T6995 Las Vegas Nev IX 2
In same excellent weeds
near sewer - M. yarrowi?
series taken by careful work
They are dry and often
found inaccessible places
to hide. S. chockone common
here. S. venusta one taken.
M. flavescens here not common
Apeia Conozoa plentiful 2
Desautlius beatus f. Wals.

Lincoln Co. alt 4400

80T7000 Caliente Nev. IX 3

In meadows of high green
plants (specimen kept) in
small series of Hesperotettix
taken by long hand work
M. bowditchi? common in
same place. Conozoa common
on ground. Silantaki
S. monilia beaten from
Hesperotettix bush Desautlius
also M. fuscus ruber

only a few marsh grass

alt. 4400 - 5200 -

8177110 Caliente Nev. On
mountain side covered with
a scattering growth of sage
and desert bushes. M.

showing the most plentiful
and also the largest of
pumpkin on ground, and
hiding deep in the bushes

Acidoplia found in
smaller thorny bushes.

also: *Am. bowditchi*? in
this locality in fair
nos. A few *T. undulata*

1 colony of *T. cyaneipes*
found on bare place

in canyon side. *Lepus*
there also - 1 *Arctophila*

1 taken on bare hill
summit. 1 *Par. lullas*

4 *Parapornata* taken
in dry grasses. *Monopa*

found on outer side
in a kind of grass
and another bush
(both specimens kept)
Agrostis common
on bar ground among
bushes - collecting slow.

8277180 In bare wash on
edge of Calcutta near R. 3 trees
L. anata gr. & Helianthus
were found - none others
could be found. On outer
side all others were taken
including ~~Sedum~~ ~~Urtica~~ ~~Urtica~~
and the rest except ~~Decand~~
swept from ~~Hypericella~~
with like those this All
Yponome found only in one
storey at foot of
slope Alt 4400 - 4600
~~Hornumia~~ also swept for
the probably be seen

(5971 RPS)

alt 6000 ft

Trinidad Co.

83T 7210 Crestline Nev. IX 4

collected in scattered forest
of Utah juniper and occasional
pinyon (*Juniperus utahensis*)

The two green beetles were
taken in this juniper - Both
were located on the night
of IX-3 and one was taken
by aid of a flash light
up 25 ft in the top

middle clusters of a
juniper - Its note was
much like *Sueddenia*
~~and~~ but was more
difficult to locate.

When found the
insect started to
crawl down the
branch slowly and
I was unable to
seize it until it had
gone down the trunk
over a foot. The other

was located in a
prunifer about ten
ft high and the next
morning was found
resting in one of the
topmost bunches of
needles where its
coloration made it
almost indistinguish-
able to surroundings.
When seized it
uttered a sharp twick
twick twick over
and over again - The
song at night could
be heard by intense
listening at about
two hundred feet
two others were heard
they began song
as dusk fell and
were loudest early
in the evening
at the night

coyotero

1 Another taken in
a bunch of ^{sage} grass
in the juniper forest
where there was
nearly any other
vegetation. *Strapulum*
taken in about the same
situation. The small
sh w. w. were not
uncommon in the sage
flats in sage bushes
the small sh w. w. were
was very scarce indeed
the few taken were with
feathered and found
where the low yellow
flowered and a sage
grove. *Cordillacus*
was taken in a bare
place at the end
of one of the juniper
covered ridges. The
blue by *Trinactropis*

was found in a small colony in this spot. It was seen nowhere else. The red leg Tamarotops was found on the bare ground of the juniper covered country especially at the lower levels. The blue wing Cyanocyanus was the same but more common at the higher levels. There also in a species of yucca wood (See Caliente) ~~cupressa~~ was found quite numerous. ~~Silene~~ ~~in~~ ~~ground~~ among yellow flowered bushes. ~~Amittus~~ in piñon forest near bush pass. ~~Perotomura~~ ~~near~~ ~~station~~ ~~on~~ ~~the~~ ~~ground~~ covered by yellow flower

Plant - *Azemitellix* not
uncommon here and
occasional on sage flats.
Hesperotellix also taken
on yellow flower bushes -

T 7325

84 Milford Beaver Co Utah IX. 5
Alt. 4900 - 5000 ft. At the
lowest along the Beaver
River in salt alkaline
short grasses *Westobria*
knovana was predominant
& very common. In the
wetter higher marsh
grasses the *Leucocorymbus*
was predominant & equally
plentiful. There *Xiphoides*
was likewise very abundant
Opis common in short
grasses & *Azemitellix* also
a series of *Poa* Wyoming
taken here also but local
[*Orphulella* not plentiful]

near the river by beating
3 sp. *Settegida* were taken
one *S. Settegidea* [vibrata
is few ones and a very strong
looking one. *D. carolinensis*
common along R.R.
The *aculopis* & *melan*
taken in salt bush near
the grasses. *Deroceras*
near town on desert
heavily brush covered.
Attania in short grass
M. bowditchi near marsh
Hesperotettix in yellow flower
bush. *Aculopis* very
scarce in short grass.
S. bilobata along edge
of desert. Nowhere common
but well distributed
Bilobata often makes
quite an error for so
small a sp. - Like *Eucrypt*

85 Milford IX. 5 ~~Laticincta~~

On ridge covered by sage
only at 5000 ft. + Arphia
which made an extremely
loud chatter as it flew -
A very few greenish lig
sp. Trimerot were found
single in areas where
sage was ^{scant.} very low
and the ground was
bare. A very scarce sp.
of Mictops takei were also.
A few Carlinianus were
taken here also. L.
Laticincta a good sized
colony found on quite
bare slope near edge
of town where yellow
flowered bush was
predominant. The
closely allied species
was less abundant
in any one spot but

was everywhere found
especially in yellow
flowered bush area,
G. bilobata the same
but less abundant
widely distr. but usually
found in pairs or singly
M. bouditchi group was
not in common in
sage esp where sage
grew occasional in
yellow fl. bush areas.
Deolopius in sage and
salt bush - The latter
usually very scarce
and hard to take.
Coryza only on edge
of town on bare gr.
in waste field only
There not uncommon
1 *Hesperot* taken in
yellow flowered bush.
Ornithella occasional in

1 *T. caeruleipes* taken
in sage covered
situation. *T. lateuncta*
locally and similar sp.
general most common.
M. bowditchi sp. the about
same as the latter.

$$T 7630 + 145 = 7775$$

Quint Co. alt 5839

87 Intic Utah IX-6 a few
H. gillettei taken from
yellow flower beds with
great difficulty. 1 *Acanthaceae*
also. *T. gracilis* found
in small colonies on
bare earth in sage
flats - not common
and very local. *T.*
cyanipes sp. local but
fairly common when
found on higher
ground where junipers
grow and are

1 *T. caeruleipes* taken
in sage covered
situation. *T. latevitta*
locally and *miniba* sp.
general most common.
M. bowditchi sp. the about
same as the latter.

$77630 + 145 = 77775$

Just Co. Oct-5839

87 Intic Utah IX-6 a few
H. gillettei taken from
yellow flower buds with
great difficulty. 1 *Acantia*
also. *T. gracilis* found
in small colonies on
bare earth in sage
flats - not common
and very local. *T.*
cyanipes sp. local but
fairly common when
found on higher
ground where junipers
grow and sage &

yellow flower plant
were occasional -

T. muculata near
station & *Papilionaceae*
among steps on
bare slope. *Cordillaria*
occasional on almost
bare ground usually
where sage bushes
grew - well distributed

M. bowditchi ^{very} common
everywhere among
sage & *Pseudotsuga*
taken on bare ground
in sage flats. *Aspidotria*
fairly common and
well distributed.

T. cyanepennis not
common among
juncipers on bare
ground. - The country
was rolling the low
ridges covered with a

J. gracilis made a distinct tick tick tick
as it flew up. - *J. cygnipes* & *cygnoides*
a loud whirring the latter almost like a ^{whirring}
scalloping growth of
junipers and a very
little undergrowth - mostly
the yellow flower plant,
occasional sage and
an greasewood - The
depressions were pure
grass with some
ground - certain areas
were mostly the yellow
flower bush - All
the *gibbata* however
were taken from the
yellow fl bush where
it grew among sage
77775 + 205 = 7980

alt. 2026 ft.

88 Las Vegas Nev. IX. 2

these were captured at
lights about the station
Microgylus alone was
taken from grass along
road at night where

It was shrubby trailing
of a much higher
pitch than *Thypha* sp.
T 7980 + 10 = T 7990

Salt Lake County

89 Salt Lake City Alt. 4500 ft.

IX.7 Collected on rather
bare plain except for
a growth of very short
green weed - *Arthra*
found in ^{1 mm} grasses ^{also}
and near base of
foothills. *M. packardii*
common in weeds -
A very few *M. arvensis*
in same location
while *M. altavii* was
in great nos. *Utricularia*
beatia from yellow
flowered bush which
bush was scarce - A
few *Hesperolittor* taken
there also. *L. latyriata*

only seen & taken on
plain. *S. vicia* on
lowest slopes of hills
1 *Autocara* on bare
plain also 1 *Absentulus*
S. cyanipes common
locally on edge of
plain and on bare
spots in lower foothills
Aeneoletus scarce in
same places.

77990 + 75 = 8065

90 S.S.S. XI.7 alt 5000-6500 ft on
Maple Peak, Wasatch Mountains.
alt 6000-^{low} 6500 in mountain
herbage *Absentulus* were taken
They were found most numerous
near the summit. At the
summit *Hippiscus* and
several *Absentulus* were
taken. In ^{low} mountain
herbage near the summit

The *H. pratensis* ♀ were
taken - some others
could be found. The ♂
was taken near a cut
grass meadow at about 5000.
The features are yellow flower
beds wherever it grows -
not abundant. *M.*
lurida & *M. artemis*
scarcely in areas - The
former the most plentiful
at the higher elevations.
Phaceliotis found from
5500-6000 in scrub oak
and sage - very scarce -
Asphilia common all
over mtn. *I. laticincta*
only occasional but all
such mtn. *Ericotia*
were found all above
6000 ft - frequenting the
steep slopes and bare
spots - They were not

in great ones more yet scarce
made a great clatter
often remaining in
the air a long time
and keeping up a
loud jerky clatter.
I noticed that each
time as this noise
was accentuated the
force of the wing
beats threw the
insect back giving
it apparently a
jerky hovering flight.
♂ & ♀ were equally loud.
Sage W. not at all
common on sage above
5800 ft. *Aulocara* in the
more bare spots - fewer
♀ at summit. *S. murata*
a few found in the oak
scrub of the cañon at
about 5500 ft.

T 8065 + 115 = 8180.

Mesa Co.

91 Grand Jc. Colo. IX:8 - mesa
bet Grand & Humison Rivers
alt ^{4700 ft} 4800 ft. Ground bare
covered with a scattered
growth of Chenopodium and
occasional very scant
grasses - Other plants very
rare. *S. strigosa* red leg common
and almost everywhere
on lower portion of mesa
a few *S. vire* there also
and 2 *S. laticrista* - Here
we took 1 *Caryocarpus* and
4 *A. chenopodi* - The latter
were carefully searched
but were found to be
very scarce on this mesa
Durobrum, not uncommon
in small colonies / *Sidalia*
occasional *Squarrosula*
were found there. *Lactuca*

Hesph. viridis taken in
small clump of yellow fl.
plants. 1 *S. inconspicua*
found on boulder strewn
mesa side in ^{very} scant
herbage. A series of
sage brush *M.* was taken
on sage on the bank of
the Gunnison and the
few Sulciferous were taken
there also alt. 4585 ft.

2 *S. nevada* in ^{very} low green
weed in one place on
mesa.

T 8180 + 105 = 8285

92 Grand Jr. Colo. 1X.8 In
muddy flats along the
Grand river. A colony of
Encyrtolophus found in
one very small spot of
short grass but two were
taken elsewhere in April

of careful search -
Aphulella in same
place - 1 Stagnom taken
on green weeds - In these
m. different m. fauna
common m. bivittatus
occasional. 2 T. red leg
on bare mud flats
and a very few Sula from
1 Hesp. waid on yll fl bush

Derot. on mud flat -
Except in one small
spot of only a few sq
ft collecting here as
elsewhere at this stop
could hardly have been
said to be productive.

$$78285 + 55 = 8340$$

Barfield Co.

93 Bluewood Springs Colo. IX. 9
Iron mtn. Alt. 5800 - 7100 ft.

Specimens collected in
grass and weedy field
at foot of mtn. on slopes
covered w. juniper and
some pinon - bare ground
while higher there were
grasses & herbs in spots
under the trees and at
the top open spots
with more of the low
vegetation and a little
sage. C. suffusus was
occasional on mountain
where the ground was
bare, quite often they
would fly up into the
junipers when disturbed.
C. undulatus was
scarce up to 6000 ft
but above that it
was abundant and

in the open spots on
the summit it

was very plentiful &
kept up an incessant
whirring and crackling
quite different from
the sharp clatter of
C. suffusus - T. caruliformis
was plentiful from
3000 to 6800 ft on the

bare slopes under
the junipers it also
made quite a clatter
when it flew up - T.

cincta was very abundant
and whirred as it flew
up - It was most
abundant toward the
top of the mtn. T. unconfi?

was only found over
a small area on the
bare slopes not above
6200 ft. It was locally

in scattered colonies.
Cuphea was in great
numbers from top to
bottom - wings orange
very few, red many.
M. altitudinum found
scattered in herbs patches
under junipers from
6500 to summit - not
plentiful. Attaris
common all over sub.
Sage brush found but
scarce in sage at top.
M. flabellifera found common
locally at top about sage
but some were also taken
in low herbage a distance
from sage. Scudleria
taken in low herbage
under junipers. Andros
found in open spots
in scrub herbage near
summit - scarce -

Q. arctica? Taken at 6000 ft -
same in this place -

A. ventiles in same
situation but in

fair nos. A. gemellii
very scarce 1 D. tectus

Taken in bunch of grass
under junipers at 6000 ft
1 Shistocera taken at
summit by Smith.

$$T 8340 + 362 = 8700$$

94 Blue wood Sp. IX. 9
On South side of river -
1 T. gracilis taken on sage
flat. 1 D. robustus 1
M. tectus in weedy field
1 H. gyllenhalii on yellow
flower bush on south
slope. S. p. brush M.
not uncommon in

sage. 1 P. coloratus
taken from sage on
summit of mt ridge
at 6100 ft. 1 T. confusus

Taken on red soil ridge see
protective coloration.

~~Brown *Amphispiza* and
green w/ yellow spot on
head were collected by
hand beating of scrub
oaks on lower slopes
They were very hard to
get - 1 *Geothlypis* -
Taken from weeds on
river flat - The latter
song is shriller and
more high pitched than
the other 2 sps - Their
song is rich and of
a less high pitch.~~

T 8700 + 50 = 8750

Lake Co.

95 Limerick Pass Colo. IX-10

Alt. 10240 ft. On side

hill of short scattered
grasses and sage - *C.*
suffusus common

circumulated occasional
Cynipia only. It seen
near foot of hill. In
gully whose bottom
was filled with
small pieces and
the interspaces were
carpeted with heavy
grasses we found
Podium not common
a very hard and
prolonged searching
was needed to get
the series. Chorthippus
here also but not
common. Camula
was very plentiful
on the side hill.
In nearby meadow
and slopes we
found no orthoptera
or other

T 8750 + 80 = 8830

Otero Co.

96 La Junta Colo. 18. 11
alt. 4045 ft. on bed

of Arkansas River on
areas of dry ground
with short grasses
and most of the
land covered by a
dense growth of heavy
weeds wild sunflower
etc.

M. foedus common in
high weeds - M. glaucifus

not uncommon locally
on edge of high weeds

M. Sabineus everywhere

M. regalis in fair show

at woods M. plumbeus

common same places

M. brittanus occasional

there M. differentialis in

sunflowers along road

Baronema plentiful

on bare places. Westoby

also common there

Arphia occasional

Arpholella v. scarce

taken on river bank

I. v. common also at

light P.M. Acrolophus

occasional in ballast

weed, 1 ♀ Photoliot swept

from same. I. citrina

common locally very

gregarious and the

most shy of I. I have

seen this trip. - I. fatic

scarce I. monticola

more so Spharagmus

very local not uncommon

all of these in the open

spaces where there was

hardly any vegetation.

M. laticornis makes strong

noises as if attempt

to fly with aborted wings

when captured they

are very vigorous.

Antlocara scarce & local
in bare spots. M.

Laticrus the most com-
mon species everywhere 96497
etc in high oak woods
along road where M.-
plumbus was equally
common.

$$T 8830 + 160 = 8990$$

annobius & gryllus
Taken out tonight at
La Junta attracted
to light

T

Specimens from bet
Pueblo & La Junta

$$T 8990 + 10 = 9000$$

Pueblo Co.

Monday, January 14, 1913
The morning at school

After breakfast we went to school at 8:00.

The first lesson was a recitation of the

story of the boy who cried wolf.

Then we had a lesson in arithmetic.

We learned how to add and subtract.

After school we went home and

did our homework.

I had a very good day.

The teacher was very kind.

I liked my school very much.

I will go to school every day.

I am very happy.

My mother and father love me.

I will be a good boy.

I will study hard.

I will be a good student.

I will be a good citizen.

97 La Junta Colo. IX. 11 alt 4150
Edge of the plains plateau

on broken up limestone ground
covered w/ sep yellow flowers
bush other herbs & grasses
sparingly. T. prunigenis every
where & there on hillsides -
Swins taken only by long
and hard search - It is
not shy but flies up
constantly takes some
time to get on wing and
is easily taken as it flutters
up - has a ^{high} clicking note
as it flies up - They often
sway concord lie close
and flour themselves
to one side as net is app^r.
♀ only 3 seen taken near
dry stream where wept
was a little less scarce
Arphia occasional on
hillsides well distributed

Urosus ~~occ~~ distrib
concluded several years

→ T. formosus occ. Two
or 3 males flew up then
quite a while before seeing
another. Hadrutt scarce
on plain itself. T. brun
down near dry water
courses also scarce. T.

lativitta not uncommon
usually on hillside,
not particularly local.
M. regalis scarce. 1 fract
taken under a yellow fract
long wing Phactaliott only
seen. M. conspersus common
well distributed. Ar. defl.

Taken in night ground in
valley bottom. Present

Decid. form ^{E. sandersi} on
ground and stridulating
d. high pitched dzzzzzzzz
dzzzzzzzz on top of

very low plants - ~~Other~~
~~Dactyloctenium~~ on yellow fl
bush - would drop and
hide in roots often almost
under ground but not
extremely active. ~~Campyl~~
common in sunflowers
etc along dry streams
elsewhere occasional
Mestobry common about
everywhere M. platy
not common but along
hillsides M. laticornis
common but not as
c as in valley bottom
M. flauipes common
M. like the last word
leg very rare. Ailoeas
common esp on plain
in bare places Agrostis
scarce. Mercurialis well
distrib not common
Phibosts in grassy

spots not common
Dieris on dry
stream wash not very
plentiful. Asplenium very
scarce in yellow fl bank
Apocynum scarce. Titmouse
found up in yellow flower bush
Linum common
Thesp occasional on hillside
T 9000 + 325 = 9325

Hamilton Co.
98 Syracuse Kan. 1842 Alt. 3250 ft
Collected in short grass prairie -
most profitable where there
were lower spots where
great sunflowers other tall
weeds bordered by quite
succumbent grasses - On
these grasses and the low
weeds Diaperomera was
found very common but
quite local. Stagmomantis
not uncommon here also

more widely distributed.
2 Titania in grasses
on edge, Xiph in fair
rows there. nest, know a
very common on prairie
M. labeus & M. fenn a
very common in heavier
vegetation - die & twitt
occasional there. M. regalis
very common on prairie
^{near} edge of heavier
growth. A small colony
of Hippiscus found here.
Prachystola taken on
edge of woods - Asphix
there in fair numbers
Psittacus on dry
bare area. H. speciosa
among sunflowers -
they were usually
found on the stalks
several feet from
the ground end.

were by one or more
Conium - Euaptol

very occasional - scarce in
weedy places, Synbula

occasional in ^{high} weeds
& dactylocten taken on
edge of weeds, m.

pedus, packardii scarce
in weeds. Autocara

very occasional on

prairie - Hedrotett ditto

D. longipennis scarce on
open prairie - J. latiflora

occasional there. Philibot

there fairly common Aquid

not scarce - Abutilus scarce

in grasses on edge of heavy

vegetation - Opia on prairie

fairly common. Tryblus

in weeds, Campylocent

common in high grasses

weeds and afflorus

Stelator taken in thick grasses

T 9325 + 275 = 9600

Ford Co.

99 Dodge City Mo. IX-13

Collected on wet grass
prairie - In more grassy
spots other was plentiful
In bunches *Campyl*
very common. In drier
ground *Campyl* scarce
Protobolus common
around. These in
short grass 2 sp of
Arphallo were common
M. altavus 2 all sp
common on prairie
also *Polypodium*
Aquilegia fairly common
M. regalis the same
small *M. like regalis*
green very scarce
In damp short grass
Mercurialis there very
plentiful. *Hadrot* also

very little can be said
as everything was
so wet that it was
mostly guesswork even
in regard to commoner
species.

note blue veg
m. fuscus rubrus

T 9600 + 345 = 9945

100 ~~Boeppha~~ ^{Boeppha} Ke. ix. 13

✓
Clypeolum taken
stridulating high
on the tassels of
corn - not scarce -
often on prairie grass

T 9945 + 20 = 9965

Total collection of
trip 10000 specimens

Stafford Co

101 St. John Kans. Spec
collected on short
grass prairie all
over taken

T 9965 + 20 = 9985

Total 10000.

Emporia Lyon Co. Kans.
1 Cross Section.

2HPP = 745 - 00 25

5000



2HPP = 05 + 2HPP + 5

2HPP

Monroe Co

1 Long Key Fla. 111. 13

Anisomorpha 1 beating

2 under coquina boulder of
the boulder Cyrtopoda
beaten from the dense Key
scrub. Tiphloplus & Hapetus
quadr. beaten from Tex.

3 Lutia Tapia from under
dead cocoa palm fronds

on ground Few Arphid
in scant salt on grasses
Amblytropidia in grassy tangle
along scrub Eptenopodes
scarce in same place P.

paratyoides the commonest
there a few also along
beach in beach vegetation
very active. P. americana
in latter location principally

Tarfianid sp. found
in the cocoa palms at
the base of the ponds

where these are most
~~often the dead ones~~

have been taken off -
The maggots were taken
from prostrate trees &
the most were found on
a tree which was nearly
dead - 1 ♀ was found
guarding her eggs - she
attempted to carry them
off in her mouth.

They were often near
nests of a small stocky
red ant inhabiting the
same place. Colonies of
very young were also
discovered. They were
found in about 1/2 the
places examined.

1 m. Hydrobia and the
strange insect dark
couch were taken from
under the bark of dead

cocoanut palm stumps

~~The Anisobatis were~~

~~all taken from the~~

heads of dead coco
palms which had been
saturated by salt water
& were thoroughly decayed
The *Cr. diaphana* immat
was taken from the con
sides near the trunk

of a standing sapling

The *D. doctroptera*? immat
and *Eurycolis* were found
on some *C. palus* as
the *T. fuscoides* sp. but
in the dryer portion
of the fibres - 2 adults
escaped. 2 *Pycnoscelus*
were taken in same place
& 1 *Lophopus* found dead
Myllodes adult taken
from crack in board at
deck - all over the

Long Key Camp. These
were found ~~at~~
at dusk especially &
almost all in cracks
between boards. Specimens
of *Stix* kept. 20 adults
& 2 on *Furciculids* sp. taken
All sp. seen taken 0+110

Monroe Co.

2 Key Yaca Fla. 11.14

Apterop occasional in
marshy spots Aulobryon
locally not scarce in tufts
of a sort of wire grass &
salt marsh grass, a few
Orphidella there. Encyrtid
not uncommon on cleared
coquina where scant green
vegetation sprouting up
Protogides occasional
in cleared jungle growth
1 colony *Hydrobia* under
board - *Orphidella* escaped

Scouts occasional
everywhere. A few
Tiphopius on green bushes
and Liptotiph beaten
from mangroves in
the swamps. Their high
faint shrill sound
there be constantly heard.
This Key has more open
space than any other
grasses than Long Key
no beach palms.

110 + 55 = 165

Nourae Co

3. Boat Key, Fla. Mar 16. W of
Key Vaca. Key small -
openings in brush jungle
filled with high grasses.
All specimens taken there.
Note color *Aspilota*
doublet small, is *Aspilota*
Symonea the next day
165 + 20 = 185

Moose Co.

4 Key West Fla. - 111.15.

notes of last trip agree
except - a *meurina* &
occipiter taken under boards
also on what *Sutea* & *P. aurina*
also a large colony of *E. foid*
was found - only 3 or 4 seen all
not adult. I noticed that
they squirt out the stinging
fluid when disturbed &
trying to escape. It
is a white liquid which
squirts out of their tails.
All the beating which we
The large series of *Cyrtop*
& *Liphoplus* & also several
Hapithes & 1/2 grown *Stigmone*
revealed but 1 ad 1 m *Plectop*
poeyi - There were on 2, *castan*
as were present all rest
etc. *Cyrtop* a few of
which were taken over
swampy ground & others.

bushes w shiny leaves
~~Both tetragnaths were~~
~~taken seating bushes -~~
The adult from Ilex
in a powder dry field.
Ammomorpha under
boards Micryllus
under coquina boulder
Stryllus in the hole
among salt marsh grasses
Diphia was found
widely dist in open
places in the scrub
& much more plentiful
than on my last visit.
Chorty ovarius in
coquina where the
short scrubby grass
Paroxya usually in dry
places among coquina
scrub vegetation.
Asphulilla there also
but not numerous.

& Aptenopodes there is
still scattered over
Shinto plantations thru
the bush. 1 Asaxipha
taken in salt marsh
grasses - much beating
was done but failed
to reveal others or
Tettigids. I am told
that in summer locusts
appear here. Note
1 of 2 Siphopides on. This
one was taken
under a board - It looks
somewhat different - Several
of these were noticed. Total
of all taken under boards
 $140 + 185 = 325$

K. west is being
fast cleaned off -
The only key showing
signs of life at present.

5 Key West Fla - 111-16

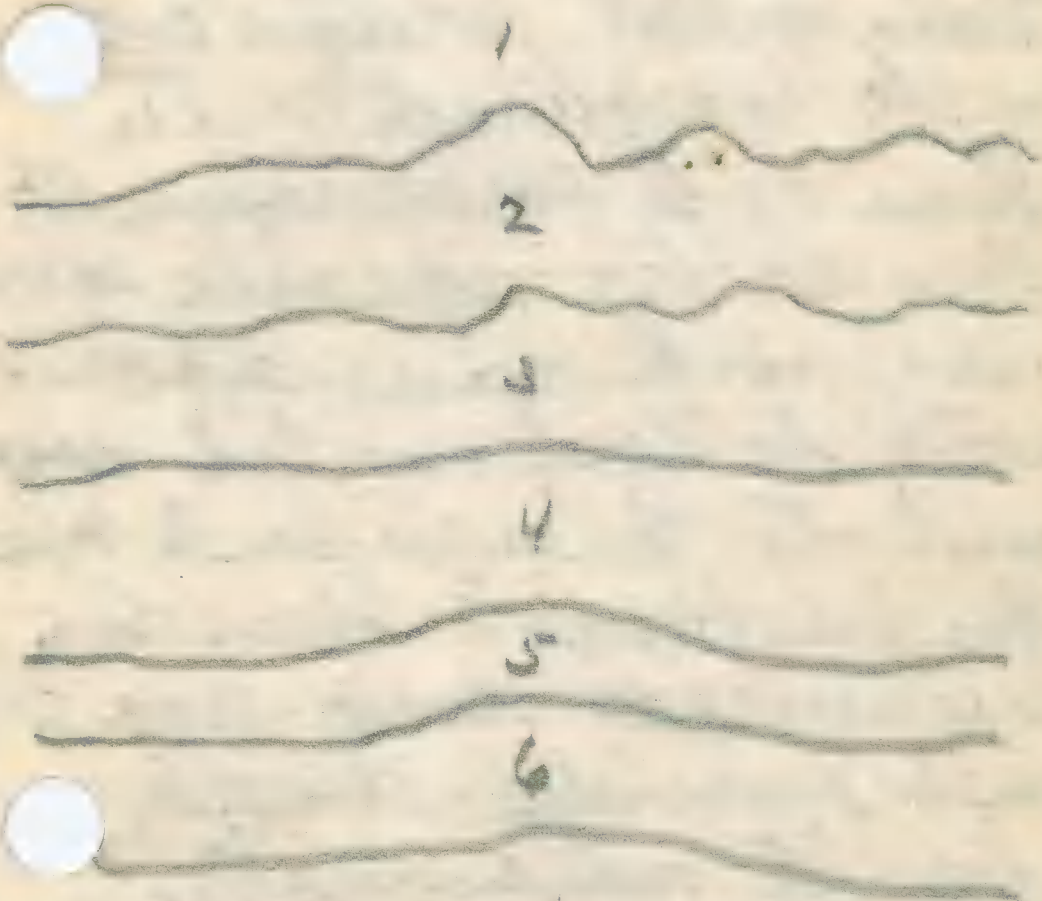
Colony *Aeusomorpha* all
in *Cordia* found in board
pile - When stepping to
the well formed larvae
eggs were noticed - *C.*
lutea tobacco in dead
grasses etc under same
pile. Many *Coquina*

Boulders in guabo luis
jungle turned over -
17 and a few of *Megastylus*
alone found - beside 3 *E. rufus*
An strand with *Coquina*
boulders on *Coquina* sand
and also a little back
from the beach in sand
F. bidens common - usually

found in 2 & 3 - *A.*
varipes occasional
and *A. maritima* very
plentiful - often colonies

of six to eight found
under a *Coguisa*
boulder in vegetation
of plant (Cuv. I) above
Scaptomyza taken
and by very long search
under cog boulders in this
location a series of *Firebe*
were taken. The first boulder
to reveal them had 35 & 19
clinging to its under
side all the rest were
found singly. When the
boulder is turned over they
rest motionless and are
of almost the exact color
as as to be perfectly colored
from a protective standpoint.
They rest motionless but
unless quickly seized
will soon begin to
run for the dark and
if too slowly approached

The juncos with such
~~nigra & quercina~~
 that it is utterly impossible
 to follow their movements
 1 Stelprockera beaten
 from a nigra. The casin
 The Pycnosallus were
 taken while hunting
 Cuvulabio etc -
 The beach is peculiar



1 sea 2 bare rock at
 low tide 3 coquina sand

4 track insect - (all the
plant in air I)

5 *coquina* sand

6 the insect. - The odor
emitted by *L. viduus* is
undeniably unpleasant.
It is like that of carrion
but if possible even more
disagreeable. - They seem
to shut their when closed
their great forceps are
weak compared with
those of *A. martina*.
The latter species when
disturbed runs about
with its tail curled up
and its forceps wide open
for business. Thus *A.*
crumplex does not do
out patches sharply
for its size. Whereas
the odor of *Curystis* and
Amorpha *acuta*

disappear the specimens

of *T. bidens* still stuck.

The *Stelmacidra* contained
124 fully developed eggs
and 14 partially dev.

$$325 + 160 = 485$$

6. Long Key Fla. III-17. Search
in cocoa palm tops. Almost
every one contained

Trypicid and bees
going thru very carefully
sometimes 30 could be
taken from a single
tree. Saw 1 one up top
but couldn't get it. Under
cognina boulder. 1 under
in under cocoa palm prob.
also all the *Pycnospilus*
& 19 other unusual ones

$$485 + 150 = 635$$

Monroe Co.

7 Key Largo (cont. pt.) Fla
III. 18 In small grassy
spot beside RR station
& *Paronyx* taken - all
the rest were beaten from
vegetation in dense
jungle of gums *Cinbo* etc.
It was so thick as to be
almost impenetrable.
Samples 2, 3, 4. The legs
of 2 droop in clusters
and afford shelter
for the ^{many} jungle *Tiphopterus*
& *C. Baileyi* - 1 *Lept.*
ringii taken - these are
covered w sparse silver
scales - prominent. Hal
The jungle *Tiphopterus*
has scales only on
under side and
around segments of
abdomen giving it a
ringed appearance

and a striking red
& black color.

The named insect
walking stick was
seen from a dense
tangle of wild grape
vines & soursop.

Paroryza looks like
atlantica. All the rest
are decidedly the other

Plectoptera & Cynoptera
also from jungle underg.

25 + 635 = 660

Dade Co.

8 Homestead Fla. III. 17. In
prairie grasses in Everglades
numerous plentiful but
ungratable. *Tumopteryx*

under board in grass

2 adult *Xiph* taken by
much beating the
mynoptera swarmed. Also
m. of *Dactyloph* swarming

1 *S. lateralis* *Xapou* - best in
in high grasses

3 *Rhachnot* & *Apten*
beatus in high grasses
also 2 *Septimida* & The

other *Rhachnot* in under
in pine woods - *Cyrtor*
beatus from fig trees
where a colony were
singing at dusk a
peculiarly high
clear sweet note.

660 + 25 = 685

9 Homestead Fla, III 18

In pine woods - Nothing
plentiful - *M. puer* scarce

1 *A. clara* 1 *A. aptera*

2 *S. obscura* *Amblytrop*

occ. *Rhachnot* a little

more plentiful *Alucor*

all adult - *Chortoph*

in open - *Asphid*

occasional in open

spots Parot very
local & not common
Myiellus in strawberry
patch - Taken in
marsh some of Everglades
Settigids - Nemobius (Exc
ambitionus which were
taken in strawberry bed
(in pine woods) and
Tallipes - Inula beating
Adstericollis & Tabida
from under bark of
pine logs also Curvator
Called Spanish Roach
from its small size hard
Magniflora on near strawberry
bed under rubbish

685 + 95 = 780

10 Homestead Fla. III 19

2 Chortoph in ^{pyraie} ~~pyraie~~ ^{aphropeides}

area of Everglades. *Leptysma*
crickets & *Tettigids* there
also - All scarce.

Attantius in pine woods
Xiph beaten also *simat*
Amsom; *Beloccephalus* (small)
and *Surtitia picta* (v. small).
Amsom adult under bark
of pine stump.

$$90 + 780 = 870$$

P.M. In everglades took
series of *Nemobius*, *Tettigids*
& *Xiph* between showers
also 2 *S. S. deropethiformis*
Lymnoplus under *Loct*
subshrub around "pot hole"

$$870 + 50 = 920$$

these last are at left
end of top layer Box 2.

Dade Co.

11 Miami Fla. III. 20. Cyrtex

Material from jungle growth

N. americanus common
under leaves etc along
cleared street. Pyrene
common under plants
& stones. 1 S. gebr. under
board n. In pine woods
Rhachis, Chytrina &

N. puer occasional
S. american not scarce
no Cyrtex under
rubber. At night -

Cyrtosiph. found all
over City Grounds and
Sphindus Jacquin in
clumps about walls
& porch - Besides

that 0 - 19 Muscoid
small stolidate
twice one night

920 + 40 = 960

12 Miami Fla. \$111.27 -
Series of obscure taken

in higher pine woods
under along border of
hammock. Puer
locally common in
under, in open pine
woods. Scirt. sandy roads
Aphid. in pine woods
& along R.R. Tabia
under bark of pine
wing I. on pine in auto
nest. Tettig. or Phyllid.
most Apter. in swampy
depression in hammock

Amblyony strid. Trogid.
in hedge at night.
Dytid. in cracks
about hotel courtyard
along. Nereis active
map. or swept. that
this cannot follow in

Dryllus ♂ & nymphs
all from grass along
river's banks

$$960 + 65 = 1025$$

Pseudocorypha heard high
in trees - 1 B. germanica
taken on Caecid - ^{not}
VIII. 28 C. maculosa ♂ 1025

13 Taken in low spots in
pine woods along S
bank of Miami River
Miami VIII. 28 Leptysma
in cattail sandy spots
Pseudis & Scutellaria
high ^{were} grass etc Parosya
Aphidius 2 Dryllus
Insects in Royal Palm
yard Curculionids under
my bark on pine-log
Xiph. Gethysids &
most nymphs in low
swampy wet spots

almost bare in places

Publitztopidia under
in pine woods

1025 + 100 = 1125

14 Oct Miami & Everglades

Nov. 28. In pine woods -

Rhadrost plentiful also

M. puer - A few *Macridia*

taken especially by beating

wire grass tangles

Pelocoph or found

in this undergrowth

on everglades land &

in swampy soil in pine

woods. On prairie

area of everglades series

of tithids taken. Wonderful

finding in Coquina rock

in some cases 3 attached

♀s in undergrowth of pine

woods & in prairie

Macronna in clumps

of wire grass and

burhus (low) on edge of
~~wetglades~~ Also

numerous on "prairie"

& *A. rufivent* ????????

Hapithis on undergrowth in
pine woods. *Tarbia* under

pine bark or log. *Stenota*
& *Asphidia* & *Amitypocedia*

~~colonies~~ undergrowth in pine

woods. Colonies of *Dictyoph*

on prairie & evergl -

these are always found
close together, usually

to the no. of 30 or more

Lep on "prairie" -

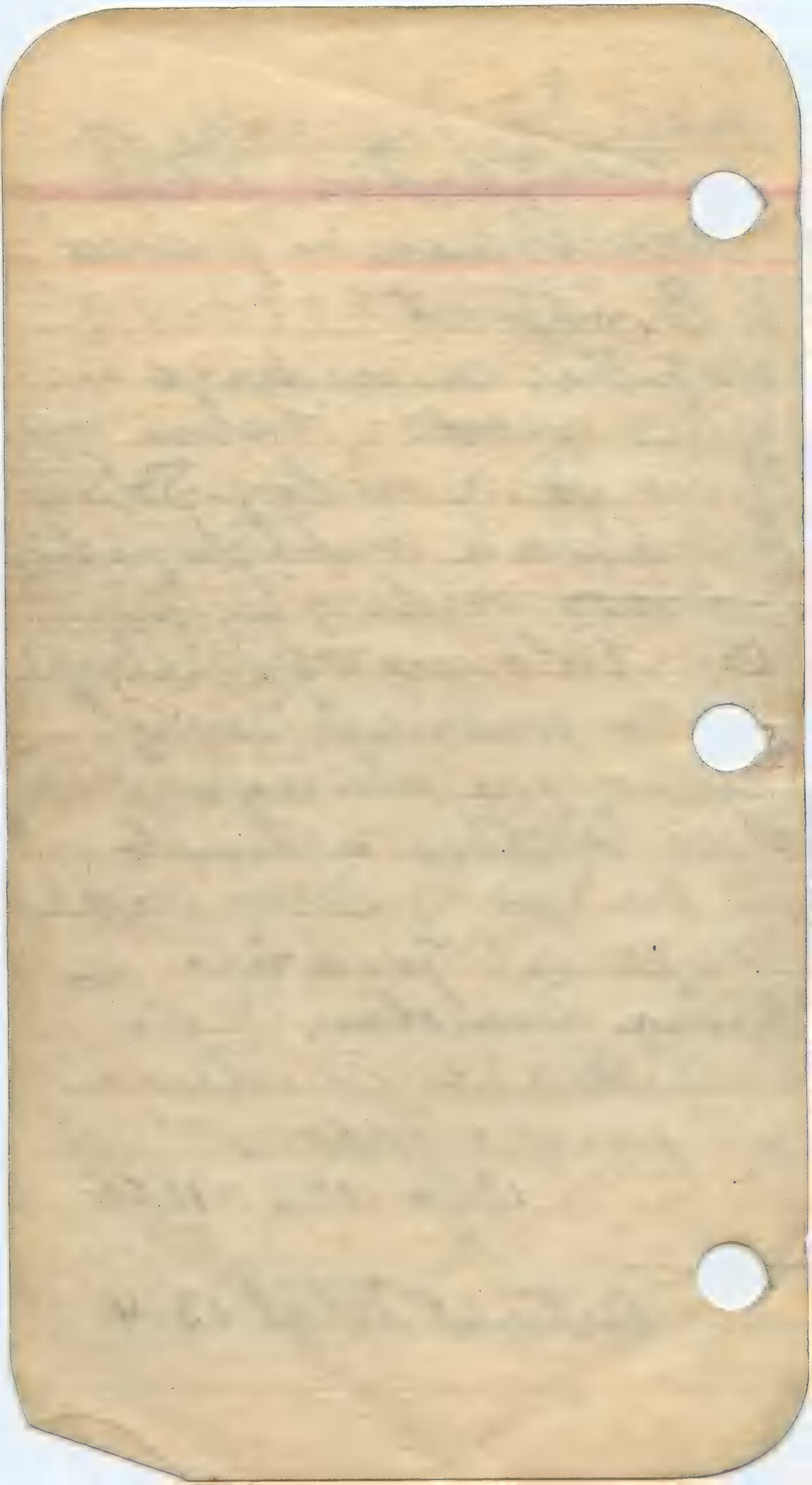
Querc. nemobius ?? or

Hapithis ??, undergrowth -

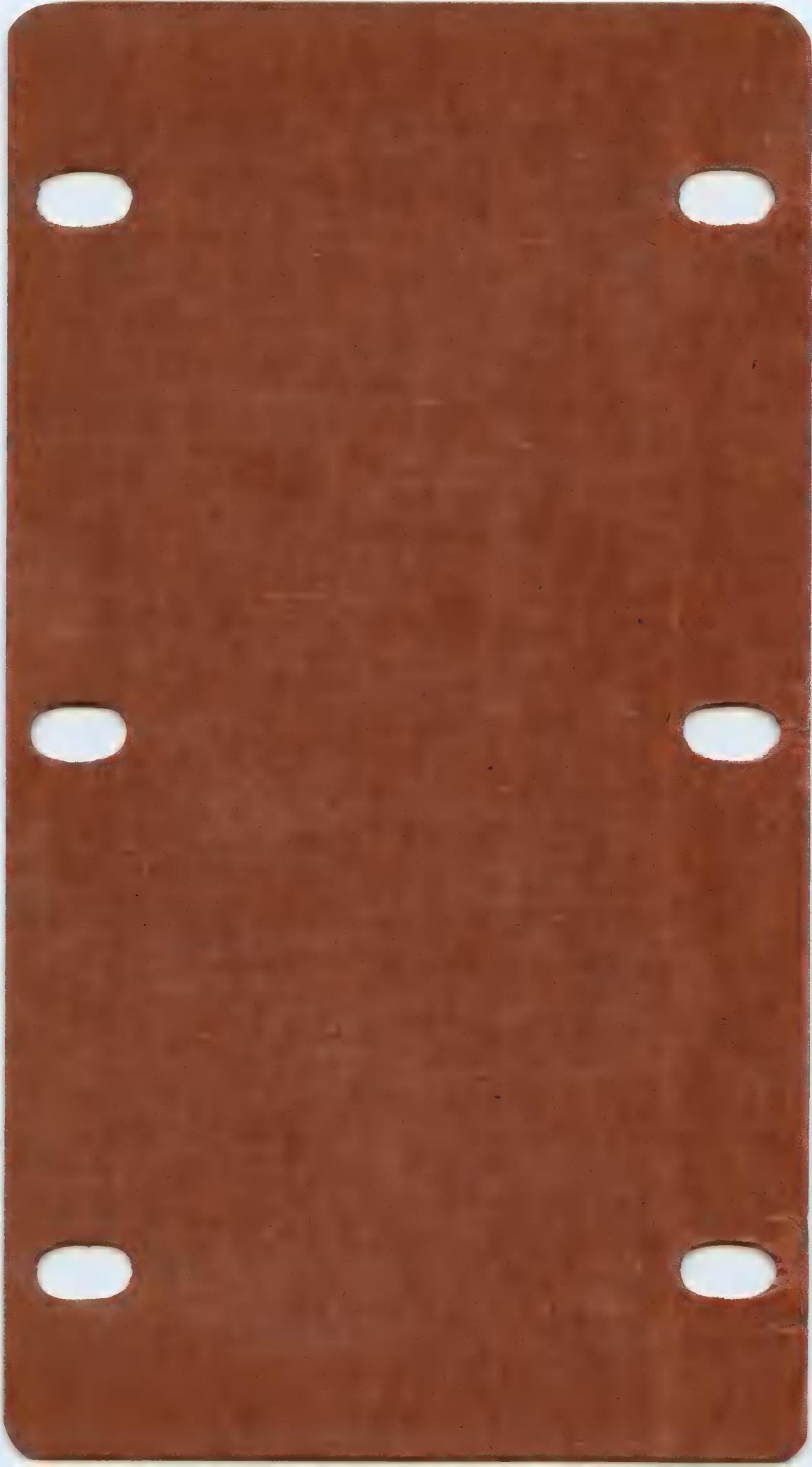
in pine woods -

$$130 + 1128 = 1258$$

Actual total 1314







1912

21913

July 3. Key West Fla.

H. sigillatus everywhere
common about wires
and human constructions
Easily taken when
not touched - app.

blinded by flash. ^{30/4}
two or three M. laevis

heard 1 taken in

nigh. bushy shrubs

12 ft from ground.

M. rostratus one

story of quite a few
found 3 taken - Only

place heard giving
their most peculiar

low rasping note very
diff from any other

species - group

group - Colony
not uncommon & widely

distributed - fruit like

note freq repeated -
always near ground,
low bunches of grass
or weeds. Trichus
heard infrequently
2 taken. Cono. mexicanus
widely distributed - found
singing bird - the
one spec. taken in
north. In Palafox
proxi taken on a
plant in wide Mexico
note was found - This
plant grows on the
marly bare smooth
coquina rock near
the water edge, but
several feet above
the water this is
plant sample no
I.

July 4 Key West.

S. americana v. concolor
Thru scrub.

S. obscura acc and local
in scrub near lagoon

P. poeyi fairly common in
not heavy bushes esp. S.
cassini.

C. guadalupensis not rare
in same as above not
as common.

H. quadratus very occ.
usually scarce in low scrub
Adiantum many nymphs
few adults in grassy &
weedy tangles

1 Conoceph same place

P. parvifides acc
not common in
same.

A. clara likewise
but few nymphs also

fruit

H. grisea on guinea lilies
esp but also sea grape
most about 2/3 grown
but quite a few very
young nymph 2 ads. These
act as nymphs have been
said.

C. australis common in
scattered grasses along
roads etc.

A. granul. Well des.
three low scrub & also
in g. lilies open forest.

T. vitivira Very scarce
on bare roads

H. grisea T. gramineis
Very occasional in
low veget on ground

Adactoxipha P. Lawry
common in fruit store

S. suppletel 1 in fruit
store

flies

Holocoopsa 5 in same

P. americana - 1 ad (many
no not taken) same

B. green 1 fairly large
colony same - in
a crack with more
ads & no of larvae.

Clusia pulchra very scarce
in green rubbish & grass
in scattered gumbo limbo
forest

C. pratensis scarce in same
but nymphs very common.

270 + 14 = 284

1. In Jefferson Hotel
B. green ^{in cupboard} anarsus I. austral
very common all around.

S. supplet occasional
on walls, in cracks
& cupboard. ♂♂ / ♀.

D. plattoides 1 ♂ in cupboard

284 + 13 = 297

July 5 Southern beach

T. citrinea occasional on sand.

A. maritima swarming under boulders & drift on beach

P. parox not scarce in veg back of beach where

D. americana swarms

Im. East Martello tower

A few adult Edontot

in grassy place.

A. annulipes and

P. swireana under boulders there.

A. olivacea common in

salicornia and other

halophytes growing on

almost bare coquina

in mangrove swamp

section on E end of id.

297 + 63 = 360 + 4 = 364

2 July 6 Pine Key Fla.

An edge of mangrove
fringe in tall bushes
and low plants

S. obscura occasional

Mermiria ♂ not infreq
♀ all min at but 2 ad seen
1 taken.

Cy. guadalupensis a few
beaten from these
bushes

C. antillarum same

P. poeyi same scarce

J. gramineis 1 ad ♀ there
in grasses 2 or beaten
in underg pine woods

C. pulcher a few in
underg.

A. pilidua a very few
there & in underg of
p woods

A. oliv 10⁺? in mangroves

S. dunnii very scarce
in underg of pine wds

S. americana same.

P. parvifides there and
along edge of key very
scarce. No ads.

A. apt there (underg) v.
scarce 0 ads

A. clara There and in
green bushes on edge
of key v scarce, had
any ads.

A. floridae In green
bushes beside Rd in
pine woods beaten.

A. granulata: scarce
underg in pine wds

H. quadr 1 ♀ (1 m (not kept))

in green bushes on
edge of Mangrove sw.

Nothing common at all

B. germanica swarms

P. americana very abdt

Miss

P. australis abdt
in Quarter Boat 2 and
in ~~the~~ Pine Channel.

O. apterum Very occ.
ads. juvs in green
patches of verbage in
pine woods.

364 + 198 = 562

July

July 7. Blab atropos
common, and few
ms between old boards
in wood house, many
ms few also under
boards on ground -
Holocorpus and rep.
The latter more num
in wood house with
Blab - they run
about w great speed
but do not go far
to hide, resting often
in the first bits of
refuge to which they come
Blab is widely distrib
and well known to
the natives about
Key West where it
is found in wood
piles under boards
& other refuge about town
The insects were

June

exposed either remain motionless or scuttle toward another place of concealment with not great speed - The nymphs are usually found half buried in loose damp earth under boards where they remain motionless basking much like creepers of earth (with which they are usually mixed dusted) until disturbed. The single J. brunnea was taken with these as also 1 amulepes while the sursum were both in the shed & under board. Two very myriapodal

July

Plab were found
recently polished
and pure white &
soft.

$$562 + 85 = 647$$

July 7 In jungle brush
of the Keys growing high
over ones head and
interlaced with vines
U. maya 1 ♀ on ground
near slightly about.

S. crepitans on ground
under bushes - mould
covered w leaves -
a few scattered
and one colony - Very
hard to take as brush
was too dense to use
net and the insects
flew readily - low

& for short distances
T. deropeltis 1 ♀ 2 ♂ in
leaf mould. There

C. lutea a few seen
1 taken as deropeltis.

S. obscura occ in
these bushes

Great quica All
on tree trunks. 1
usually ^{as} left from
you ^{over} lower on
trunks and one or
two high on trunk
on broader among
leaved branches. 2

Bh. occident. Ad.
♀ in this parcel.
In grassy tangles
near this scrub C.
fulcher common
Cococ 1 ad, many
no seen.

X. gracill. Not scarce
A. apterus very few ads
no numerous

P. paroty only 1 sp
not scarce in Bush
treated above.

Wide seating of this
tangle failed to

juv

dislodge but a few
C. antillarum, C.
quadratus and H.
quadratus - first
most plant of 3 then
quadr. This brush
work is most diff
as it is almost impos
to make one way
through and net is
almost out of quest
while agaves, thorn
bushes and prickly
pear made hard
work often painful.
A. mayri on
bush in midst of
tangle.

$$647 + 64 = 711$$

~~28. subject in Hotel Jefferson~~

711

July 7
1 P.M. M. rostr as before

J. zebra In short grasses
on str. Hwy. track - Makes
a faint kink-kink-kink-
kink somewhat like

Mimobius but much weaker
Heard several first night

J. bidens crawling over
surface of road - not
scarce near stone
piles & dwellings. J. E.

rigus up in ^{up} ~~at~~
climbing about.

Very few Cousaph.
Quard 2 taken strid

a prolonged kyxue-
kyxue - kyxue - kyxue

$$15 + 711 = 726$$

$$711 + 39 = 750$$

Hold off at night

$$29 \text{ supplement } 750 + 2 = 752$$

3 Loggerhead Key Dry

Tortugas Fla. July 8.

Sandy Id covered w Bay
Cedar bushes - A few spots
black plants & prickly
pear - S. americana
quite common - C. australis
common in colonies
in open.

Xiph. acc. in grasses
in open.

C. rosea as Miami
scarce - Heard about
five from top of light fr
which one could hear
any on island.

A. mayeri & germanae
rare in few nos
in houses.

A. mayeri 1 ad male
& 3 nos in Bay Cedar
bushes in Afternoon

June

At night w lights
The series was taken
most were found
hanging from the
terminal leaf buds
of the Bay Cedar, head
upward - 1 pair in each
widely distr over id
but oftenest in small
numbers on certain
bushes - sometimes
3 or 4 found on two
or three adjacent bushes.
Easily taken but if
stung in. Sizing them
they drop. Dr. Meyer
gives Bird Key and
Gardner Key records
for this species

$$750 + 71 = 821$$

3A Garden Key

Dry Tortugas - July 8.

Asplenium very common
in short grass.

Sch. amer. found
in beach plants.

821 + 2 = 823

3B Bird Key D. J.

July 9

1 Sch. americanum on
US bird res. house -
Are these little ortho
can exist 1st bec.

It Jefferson covers
practically entire
surface 2d bec.
number of birds

823 + 1 = 824

1A Marathon Key
Va. Fla. July 9

Belocephala large

tangle of vines & bushes
taken with light -

many dead on the
Key

$$824 + 1 = 825$$

$$828 = 54 + 128$$

$$825 + 20 = 845$$

Small stuff from
Loggerhead Key not
counted before

C. antillarum Key
repassing - beaten
from Bay Cedar

$$458 = 14 + 828$$

4 Homestead Fla July 10

On prairie - E. signatus
very common - also found
in medi fiver nos.
about pot holes.

Lept. marginic. occ on
prairie - common in
tall saw grass growing
in water.

S. carolina In saw
grass.

Xiph occ. in pot hole
& on prairie

Arche not common - on
prairie only -

Austrocladia Very occas
on roads thru prairie
common about bays

Mauouiera 2 small
also on prairie. v. lat. p. 1772
wider in
full wood

B. floribacca on prairie
scarce

P. atlantica Occas.
in pot holes and
in grasses along
edge of prairie.

Mercuria infrequent
in higher grasses
near edge of prairie
Amblytropid scarce
in pine woods - No
common.

A. granulata
Uncommon in pine
woods.

Thesprot 1 ♀ same
Quisquorph 2 ♂ 1 ♀ 2 m
in pine wds - ads
under boards

Pavilla beata from
under in pine wds
in not decidedly
wet loc.

Mott Camp
on prairie & in pot

holes - not as common
as were in March

terralis uncommon
same dope.

Apt. clara - Very
occ in green weevil
in pine woods &
about pot holes

Apt aptera 1 ad only
in underg of pines.

Ponoc 2 sp in
pot holes

Dubly-crypta smaller
species found not
uncommon in
underg of pine woods
always near or in ^{dig}
small bushes w
large green leaves.

Remob ambit
under p wds

N. cubsensis on pear
not common

June

E. niger 1 ♀ in Both
in pine woods California
under bark of dead
pine.

A. annulipes Under
board in yard.

F. undulata Under
bark of dead p log
in p woods.

S. deropult Under
boards on very
wet ground on prairie
no numerous.

C. lutea 1 seen
many no found
under bark of dead
pine.

P. ossea Beatus from
under p. wds in
not very wet loc.

H. quadr see no
only beatus under
p wds.

S. davyi very
scarce

Wds.

M. salsola 17/10
same

M. juve very occasional
in sand - No very
young.

A. apterum not
scarce in hot rolls
in rank grasses
& occ in under pads

P. punctulata very
common there under
fine woods.

S. auric 18 July, on
prairie.

$$845 + 493 = 1338.$$

4 night work at
Hornstead. July 10.

Biloc very common on
dwarf palms in pine woods
2 taken on sugar cane
1 on pine tree about 3 1/2
ft from ground & one
on low bush. Their song
is faint and they cease
upon seeing one appr
even when ten or
twenty feet distant
but are very easy to take
owing to the fact that
upon close appr. they
almost invariably make
no attempt to escape,
but instead merely
slip down the frond
a few inches or
around to the other
side and flatten
themselves against

it with caudal limbs
extended rearward
and cephalic limbs
forward in which
position they may
be picked off with ease.
When seized they ~~usually~~
attempt to bite their
captor and could

inflict quite a painful
hurt on a tender
portion of the hand
with their powerful
jaws which are built
for cutting the tough
palm leaves - Their
note is very low and
consists of a succession
of zif - zif - zif - zif
- zif - zif - zif - zif
Manofera & Lysona
are out on the edge
of the palm leaves

The latter common-
Cynoceph was only
occasional, exceedingly
shy - flying wildly
away immediately
upon ceasing their
song when approached -
They would be almost
impossible to capture
did they not continue
to sing when until
closely approached. The

puscostriat and
retusus appear to
certainly be the color
phases of the same
species - Their song
is the same

krzzzzzz - krzzzzz -
krzzzzz - hum.
near each note is
heard to begin with
a sharp buzzing.

juv

A. flourensii. One

Spot on the prairie
near its edge where
the grasses were tall
was filled with this
species - so plentiful
were they that there
was no necessity
to locate singers
but I walked about
picking them off.
The grasses on which
they were fearlessly
perched. Their
note was a buzz
and click which is
almost impossible to describe
+ Emys on bark
of pine near its
base.

Pine woods Amblyc
very common but took
flight immediately

fun

before it could be located - no great effort made to get individuals as I had no citronelle and waiting was bad - many mosquitos. Cyrtos heard common in trees back of house. In kitchen.

P. americana in scowms.

F. brunneus common and very active.

$$1338 + 52 = 1390$$

juv

4 Homestead Fla. about station caught in spider webs.

- ~~3 Anthrax all Talsue~~
- ~~1 B. adspersic " " "~~
- ~~4 Ischnopt 3 " "~~
- ~~many T. graminea 1 " "~~
- ~~1 Pip. americ 0 " "~~
- ~~2 A. floridae 0 " "~~
- ~~2 small weev 0 " "~~



1390 + 8 = 1398

[Faint, mostly illegible handwritten notes and bleed-through from the reverse side of the page.]

5 Key Largo Fla. July 11.

S. americana common in
weeds beside R.R.

S. obscura occasional there

P. parvory

A. apterous Very "

C. quidbladi / Beaten from
bushes

1398 + 6 = 1404

owing to the fact that
the forest of Largo
was been destroyed
by fire on both sides
of rr. we were
unable to reach it
& could only work
in weeds & bushes
on ground - These
not original species

6. Jew Fish, Monroe Co.
Fla. July 11.

C. mexicanus Many
in grasses, 1 taken
X. gracill. V. common
in grasses.

P. paroxy a few in
low plants & grasses
Sch anker V. common
in low plants &
grasses.

C. antillarum

P. surinamensis
a few under boards
in yard.

Gryllus a few in
cracks of new packed
marshy soil - All
this in bare spots
a fair colony of
Woodroffe a few
T. armata = P. armata

1404 + 110 = 1514

7 Detroit Fla. July 12.

In Navy Hammock.

S. lucida 1 ♀ dislodged
from bromeliads growing
on oak. . 2 very small
ms. beaten from Navy
side foliage in Hammock.

C. guadalupensis 1 ad (few
ms seen). beaten from
Navy bush foliage in
Hammock.

Ischnopt? m. on oak
in Hammock.

In typical saw grass
growing in knee

high water of glades

C. malivolutus

Arctel pulch not
scarce

P. floridana common

S. marginis occas.

On edge of Hammock
in pine woods

undergrowth

Amelanchier florid. 2

a few Mammonea

C. antill in weeds

along R.R. & from

foliage in bushy

wood of Mammonea

1 on C. trigonata

from oak.

17 J. drupellif under

board in Mammonea

~~1514 + 80 = 1594~~

P.M. same region

J. lucida beatus fr low bush

1594 + 48 = 1642

Homestead and Detroit -
examples of plants.

Pine - of the woods
here.

Palm w. seeds - usually
not 3-4 ft high -

Blechnum plant.

Palmetto ditto. but

not nearly so much

Epiphytes - Cattail

Utricularia and

Taxodium - taken

from oak wood.

1294 + 48 = 1342

4 Homestead Fla. July 12

The single scarce thin
brown conoc is in the
pine woods, very shy
& scarce - Very few to
be heard. 2 seen 1 taken

The green sp. is common
in the glade grass.

S. rubris on R.R. track
makes a stronger &
strid. note diff from
the nearly chirp of formis

P. M. Homest. 1 Cuth
under log soulder in
glades near edge -
1 Parula under log of
pine woods

1642 + 71 = 1713

8 Long Key Fla. July 13

S. annuncaria very

common everywhere in
low grasses and plants

S. obscura Not scarce
in Keys bush.

A. clara occ. in low
grasses & plants.

Mormiaria not
uncommon in places
where high grasses
grew on more or less
depressed areas.

H. quadratus Beatee
from Keys bush.
not scarce.

C. quercus scarce in
same - prefers
bushes & low trees
with wide leaves.

M. rostratus as
beatee from same
bush as at Key West

pus

which grows on edge
of mangrove swamp
area.

C. mayeri 1 m. distance
from Keys beach.

Asplenella occurs
in same place as Ulex

P. parvifloroid occurs
in same place as Saur.

C. antillarum in Keys
scrub not common.

1 note a number

1713 + 51 = 1764

Florida Totals

Key West	364 + 203	①	567
Pine Key		②	198
Jaggerhead Key		③	91
Others	4 + 6 +	Largo ⑤	10
Honest	553 + 71	④	624
Juw Fish		⑥	110
Detroit		⑦	128
Long Key		⑧	51
			<hr/>
			1779

4251 = 12 + 8151

9 Sulveston Tex. July 19

An sandy soil bank of
beach overgrown with
sand loving plants
& grasses low and "
soft cedar clumps" with
areas of plant (sample
kept) growing 6-10 ft.

In these clumps, not
sure - some a
long buzzing zee
somewhat like note
of some cicadas w.
few clicks in between
Under these bushes
in short grass

N. maculatus in
one spot common

In depressions w
abund. of grass

N. sordidus swarms

1 Tettigid between trees

2 of Asphondylia

common in low
veg. the smaller
very abd. Chort
common - P. amplia
common in colonies
in more sandy
spots. 2 Inst.
found like there.
Amph. occas.
in this low stuff
malanoptes very
scarce. Paraid not
scarce in grasses under
clumps of plant kept.

$$151 + 0 = 151$$

10

Webster Harris Co Tex

July 19. On prairie

2 Booped only - 1 ♂

Bruceia later from

low plants - 1 ♂ later

and P. dryceph seen

scattered - Asphid

scattered & occasional

makes quite a din

later when flies of

large Asphid very

common smaller com.

Amplyc small occ

in clump of weeds

I plants Parasit same

Xiph common Dity

E. costalis common on

almost bare black

mud edges of road

Melanoplus v. occid.

Xiph strict occid.

in Flau clumps there

also 1 Parrot & 1 Querc
Uort comu every one

Are scarce beating
Stagnon ✓ also

$$151 + 92 = 243$$

11 Dickinson Galveston Co.
Tex. July 20.

M. auratus very common
under of pine woods
everywhere.

S. nebulosus common locally
same esp. (about beetles)
on ground.

A. pulchellus there very
scarce. 4 ads

A. regius common
about bases of tall
green plants on edge
of stream thru woods.

S. brevis in there scarce
little kids on wet ground
near stream in low
green plant etc. 2
smaller (sp.?) under
pine woods.

M. robustus not common
in bushy places under
pine woods Abby's Ford

2 taken there also
1 other Anoblyc sp.

on edge of pine woods.
1 Suedd in grass plants
on edge of stream.

Mel. sp. w. very occ
in open short grass
spots in pine woods -
as many as very as seen
as ads. A very

few Paraid same
gen loc. X. strictum
nowhere common but
widely dist in low
grass plants in pine
woods. F. foliaria

under dry cow dung in
pine woods. Cypan
fulid exceed abdt
throughout pine wds.

Cyph smaller on edge
of wds & over plain
common.

Ensect cost common
along road.

Aspilota conspicua gr.
edge of wds in grass
Syrph adul. ma.
no fewer ads in
lower green grassy
spots in pines and
a few thru wds -

Chort everywhere
not always abdt
Syrphus in pine
wds underg.

1 Dit in same spot
as Syrph. 1 Ac. beaten
from bushes there -

1st great yellow lined
Selastoc seen but it
flew up into tree tops.

E. minuta on bare stream
mud places in swarms

243 + 230 = 473

9. Halveston Tex. July 21
Dunes Beach - H. rubros

very common on beach sand
to seaward of dunes and
well distⁿ in most sandy
areas - much more widely
distⁿ back of beach than
aplicarius

$$473 + 90 = 563$$

$$240 + 200 = 440$$

12 Virginia Point, Galveston
Co. Tex. July 21.

An low salt marsh
best dry ground - In
open spaces L. schaeffelei
in large scattered colonies
fly in erratic zigzags
but are not as quick
to alight as laticornis
and when not pursued
will often swing back
and alight from near
where they started - always
alight on a bare spot
The ground was somewhat
salt encrusted. In grasses
many of grass tall 1-2
ft high often Callibula
will alight, Phaenocarpa
littorata - These
insects are usually
found sitting horizontally
in grass about a foot

or more from the
ground, then up for
they climb ^{away} quite
vigorously through
the grass but are taken
with great ease as they
never climb down.

X. neoplooid name
somewhat more
plentiful - a quite
diffic species to
take as they are very
nifty and immediat
seek shelter by jumping
down low in the bushes
of grass where they are
very hard to follow
2 A. ussouri 1 C. ussouri
2 M. fuscus - a 2 by
beating several Dec.
and 3 C. squamosus
& 1 very large W. n. n.
under board & 2 W. n. n.

same in these grasses
Atriplex common
than this area. still
Atriplex only very
few, on somewhat
raised beach in low
grasses - J. maritima
common there under
boards. X. strictum
not uncommon in
place where this
tall grass was more
interfered w weeds
on slightly higher
ground. Parasit common
there and I found
there these grasses also
2 Atriplex in these
grasses - Note that
there are probably 2 of
J. citr common on beach

$$957 = 45 + 305$$

$$563 + 142 = 705$$

13 La Marque Galveston Co
Tex July 22. On prairie
absolute - Low grass and
plants - Very little ortho -
1 Chioce, a very few Hadro
in small bare spaces.
1 Mioq under cow dung.
In higher plants w
dry grasses 1 ft or more
high & few rasp
vines 3 Parabac
1 Mauouera a, few
Prumeria w very
hard & long coat.
beating. There also
S. americana small colony
and all Sudd and
Amblyc fun tanner
M. fun red not
scarce - Chort & Arph
more common.

$$705 + 74 = 779$$

14 Beaumont Jefferson Co.

Tex. July 23. Low ground

$\frac{3}{4}$ pine woods $\frac{1}{4}$ decid trees
under low grass and
one species of bush.

Mugo common widely
distr. on prairie also.

D. viridis common

a few Asphodela - larger
only in woods -

swampy ground

$\frac{1}{4}$ pines $\frac{3}{4}$ decid trees
under tangle weeds ^{some}
ramp vines - A. pulch.

common, few colonies
of Arise few Xiph. very
few Choc 3 Squid

occasional Cryxalis
not scarce J. lateralis

On bare wet ground
around grove Vie first
series J. arvensis &

Acrid also few next blan

the latter also in
 grasses / pine wds &
 prairie - C. diaph 1
 beaten from under pine
 wds, 1 under sign on
 oak along river at other
 end of Lower (S) p. 9.
 major ads from under
 dead bark of pine stumps
 & S. hebar beaten under
 pine woods. Chort
~~not~~ occ. on prairie
 also small Cryph
 one small colony found
 of E. costalis on bare
 place in prairie. 1
Conoc ♀ on prairie
Ellyes w. S. armata
 v. scarce. At night
N. fase v. common
 on str under ^(v. common under) pine wds
 2 see Neuro & Lep 1 Chort

15 Doucette Tyler Co. Tex.

July 24. Conditions

almost = Fayetteville S.C.

M. robustus fairly common

There scant under tree
pine & decid mixed forest.

S. bolli common there

~~Cyrtophyll on one very
small green bush in
deep forest.~~

C. columbiana scarce
in low bushes esp sweet
gum. P. pulchell loc
common same

C. trigonif v. scarce same

Hap. us. ^{scant} common Croch ^{very kept} few "

more in open in low
bushes large amblyc &

co: scarce Small of

common Schistoc loc

not rare 2 sp Arpucia &

there both rare walking
sticks there etc Red

scarce in undergrowth of
pine woods. S. P. fuscata
in somewhat shady spot
in opening in pine wood
Hippis local w Arphia
Arche scarce up in bushes
in pine wds. Tithys
on sandy bed of stream

$$983 + 147 = 1130$$

16

[Faint, mostly illegible handwritten notes, possibly bleed-through from the reverse side of the page.]

¹⁶ Rosenberg, Fort Bend Co. Tex
July 25 - Rolling country
covered with rich green
weedy knee-high growth
with patches of taller
plants such as coffee bean
and dotted with acacia
bushes some 12-15 ft high.

one Amblyg very common

one Auphella "

a. grallator 2

C. viridifasc occasional

a. leptola common

M. fumer- "

M. differ w. " in taller growth

Paraid \ occasional

H. specios common in
taller sp weed.

M. w. melanoz common
In heavy rank grasses
and weeds along
R.R. subarcticus

Memoria common

Pydopygma
Parabacis very common

* X: Stact conu also

gen de tr

Stipator occ in low
very heavy grasses -

V. easily taken - made
no effort to escape.

- At edge of some hammock
among heavy grasses

Boopidon ^{NOTE} locally common

Mel. robustus common
around bases of bushy
clumps.

E. costalis common v.

local in these grasses

1 Numenius & 2 Gryllus

esp no of latter common.

a very few Ardea &

Conoc in high

grasses along streams

& depressions.

D. viridis common

in grasses.

Scudd texturis 1 on
coffee bean patch
1 Dicty. in same place
as stipator
→ Boopidon - ♂ very
easy to get, they spring
and fly a few ft &
make no attempt
to hide - ♀ o. spring
heavily and at once
burrow into densest
grass where they are
most diff. to find
I got Schist on
Acacias along edge
of wood. 1 of these was
seen in forest at Dickerson

1130 + 195 = 1325

Rosenberg a.m. July 27

Mesochorus in one spot found very abdt.

Stenator much more active than yesterday and hard to take owing to heavy cover.

1 Dolichoptera last night at light.

1325 + 80 = 1405

Diploperla perennans

1130 + 192 = 1322

17 Victoria Tex. July 27

Ground much overgrazed
grasses low & dry - in
all directions acacias,
heavy in spots.

Mesochloa common
in very dry grasses
in open - a few larger
ones in weedy field
Leucopis costalis occasional
in open

E. texensis 1 on bare
adobe.

All Pseudoscorpion (?) &
1 Parabacill same
place as mesoch (along RR)
in heavy low dry grass
short occasional

2 Mutobregua

ads. Dyrb very common
w mesoch

a few orpha in same

P.M. Vict - 1 N. maculatus
makes a high and
constant shrilling stridulation
very loud for a Membrina
taken on stone in short grass

July ²⁷~~28~~ Vict. In stream
bottom in tangle of reeds
growing in high weeds
under trees.

C. antill ^v common

Hapith common

3 Caenptanot

Chid. pulch (?) not
uncommon in high
weeds -

In field thickly overgr
w grasses and low
plants -

Arcthaea grallat
common in plant
with three leaves -

Stupator scarce on ground

S. americana common

S. lineata taken - has
a very powerful flight
rising high into air
but did not go v far.

H. pratensis fairly scarce
in weeds

H. speciosus occasional
in same

Diaph or Pseudosera
fairly common

Parabacill occasional

A. mastisa occurs
on plants w broad
leaves

Aeably one sp occurs
in higher weeds coffee
bean etc.

Xiph long wing common
also Beautilis

X. strict occasional

Melanoplus scarce

Chort and Syrb common
Conoc ✓ or scarce

Musoc or ocul Cyphulella
not common larger of
scarce. Mus occasional
The Arcturaea is very
easy to take they climb
up into the higher weeds
where there are about
2 ft high. When
approached they
flutter up and then
with wings set and
legs extended let the
wind carry them on
usually going but
a few feet. They allow
themselves to be jilted
up easily & apparently
are incapable of quick
movement. The Crypt
were very many white scaled

The other Beck¹ was
studied loudly in weeds
along dry stream bed.
S. cetrina & Mesobes
both scarce in dusty
road; Praxipera all
met taken in wet
weeds in field.

The country is so
under culture that
it is very diff. to find
natural conditions.

$$1452 + 210 = 1662$$

Clip, Holiad Co. Tex July ²⁷~~28~~

H. saundersii common in
low dry grass beside RR

1 taken also 1 Anthracis
only one seen brief stop

$$1662 + 2 = 1664$$

18 Buwile Tex July 28.

In mesquite country
undergrowth dry yellow
grass only - 18/7 in O. unperj
Mesochl common

In tall green grasses
beside R.R. 17 Parabacul
Pseudoperu ^(3j)? A Mercuria
common (Roseburg sp. 77???)

In open land between
post oak etc thickets
short plants & grasses
w patches of Opuntia
S. admirab fairly plenty
S. antic very scarce
A. variegates scarce
H. pauciflora in colonies
locally common also
here beside road
Chort very common
Psolossa v scarce
Arctostaphylos frequent
Arphia occasional

1 Hesp speciosus great ♀

In gum spruce bushes
of different species
Rosenberg Stipator v.
common. - Large black
Stipator v. common
esp. in heavier bushes
S. grandis brown &
green occasional in
these bushes. The green
form found usually
up in the bushes -
quite a few of the
brown also taken
on dead ^{cup} leaves on
ground in not
oak thickets - All
three were found in
the same bush once

The two similar Step
live in the bushes &
when after jumping wildly
about - most go down
but some leap up thru
the bush and reaching
the terminal branches
rest & then leap off
to the ground with a
thud - Often two or
three dozen in one
bush, but only in
certain parts of the country
for miles none can be
found. Brandis is
more deliberate - it
climbs about the bushes
and leaps much
less - When found
on the ground it
seeks escape by a
recession of mighty
but slow hops thru

counting truly as
best it came in the
leaves. Abaddott.
found in bushes, it
is a slow species but
remains in the densest
part of the bush and
is, so, very hard to take
In low bushes with
some green vines
and tall green
- plants about 1.9
Reveria by beating
va. flavipes. common
there - occasional
in other bushes -
In the weeds near
these bushes Perid
very common, 2 Dolop
there u. foltexa
very common
are almost bare,
spots found locally

common - Mesobius
more generally
ditto occasional.

M. sh. w. in green
weeds - 2 Cryptopit
beaten there. Dart
near there & one above
on ground & 1 ad taken
also several miles dist.

S. americana common
in one colony in
open - 1 gray mottled
Ochistoc in post oak
got away.

$$1664 + 280 = 1944$$

19 Corpus Christi Mexico Co

Tex July 29. On beach

of ground w/ shells with
scant line of beach grasses

Helast rubros common

in colonies -

In heavy low growth

of beach veget back

of beach Sph. cristat

common in colonies

Hipp saussurei same

but not as frequent

J. citr very common

esp along roads.

Melanop occasional

Paraid everywhere

Musock fairly common

esp in dried grasses,

in some places colonies

of Pisic aequalis &

still often in much

the same surrounded

nestob

In salt flats on bare
spots halophytic
S. schafferi common
in scattered colonies
S. saga another seen
both very shy

Other schist Lee? in
wads colony of 5 or 6
In beach plants esp
specimens kept where
a small joint cactus
was very about the
series of Cephalotus
taken by long search
they are local & tho
found occs. Hopping
from plant to plant
the majority are
found down in
the plants which
plants are about 7
ft high & thick
the insects are

rather deliberate
and remain in
them if absent if possible
but when they fly
they spring powerfully
& the males were
noticed to use their
wings and thereby
prolong their leaf
Diaplysis in plants
& grasses nearby
2 Dulopet on there
B. acuta ads very
occ as. common
in such places.
Somont occasional
in beach veget
Encopt likewise

1944 + 243 = 2187

20 Gregory, San Patricio Co., Tex.
July 30. In small spot

of marshy veget. Arch very
common - sing very loudly
& constant buzzing sound
from this area - espec
loud during morning
and again increased in
volume but of a more
subdued tone & less at
night. Conoc very

common in high grass
very tenacious after dark
all taken w. flash.

Rehnia in almost
every other low clump
of mesquite or other
thorn bush, a few also
in tall clumps of weeds
sing loudly in a note
but practically cease
by noon and do
not sing with any

in this case, until after
dark - Their song
is a buzzing zag-zug-zit.
repeated rapidly three
or four times but when
excited this is necessarily
repeated. They rise
toward the top of the
foliage in the a.m.
almost completely hidden
but at night they
are found strid toward
the topmost sprays -
One ♀ taken in a.m.
on stem just below a
strid. ♂ The other
beaten from a tangle
near the ground at
the foot of one of the
bush clumps - The
insects cease their
song before a close
approach can be made

and in the green
foliage are ^{very} very
diffic to locate. Their
movements are deliberate
& more crawling than
leaping but when alarmed
they throw themselves
into the lower pts. of
the bush where it
is usually impossible
to find them. 17

S. grandis in mesquite
The other Stipator is
everywhere very abt
in the bush - Some
bushes are full of them
& about justly near
they are also very
common - Ant-houses etc.
have all the roads
filled with these insects
& one barrel of trash
must have contained

Shistoc, occ. - farra. in and to
Merula occ. very were
more than fifty.

1 Allypoptu, Heptadella
occasional, Mesoch
common, Aspilota
occured in low yellow
dry grass between mesq.
Propodon, there also
mod. common.

Hes 3 in green weeds.

2 Dichop only in
green tangle about
mesquite clumps.

Encyrt common on
bare earth.

1 M. ft glaucipes only,
in mesquite.

Parasit common every
M. juv not common in
cultivation.

Mesoch common as
Mesoch place.

21 Brownsville Tex.

July 31. River bottom

Beaten from tall rank grass
weeds, sunflower etc

P. oblongata almost common

Chor. texensis 1

other sp. all seen taken

etc A. quadrip occasional

P. minima common

(There are 3 sp. occaunt

the slender pale lace wing

sp. is found near the

ground - all were taken

in one place. Diloph

msp 10:15 pm both from

vines growing over low

mesquite as were all

Hapetetus night at

light 1 notabca

few Stylus 2 Thobis

and Quaddria very

common, also a few
metopres ca

Cryptopt in high weeds
as before described,
Cyclopt in low weeds.

$$2320 + 146 = 2466$$

1 Stegator taken on
station

Robstown Tex. July 31.

2466 + 146 = 2612

Brownsville, Aug 1

almost
2 sp Dichop - all
same taken after long
& constant search - They
are in tangles of
"fattery" "focier" vine
in the open grassy
spots near mesquite
and are local &
scarce - They
seek to crawl or
drop or drop into
recesses of their dens
when approached so well
protected are they by
color that they had
best be beaten -

2466 + 186 = 2652

22 Point Isabel Aug 2.

On adobe flats

covered w insects
very little grass
Nestob only common
T. schaefferi on bare
saline adobe in
colonies of few
1 Hebraea sabbro.

Three beside road.

2 or 3 colonies
Hades in tall wharf
nearby grasses w
shorter lower grass
2 or 3 small mantids
on saline adobe

2652 + 6 = 2737

Brownsville at Aug 2

2737 + 3 = 2768

23 Piper Plantations Br
Tex. Aug 3, 1912

Hoplosphy in debris under
palms in heavy jungle -
locally moderate nos -

There A. abortiva all seen
taken 1♂ 2♀ - 1m also in
dead leaves of palms on the
tree. 1m H. tuberculata

beaten from vine tangle
in puasache jungle

There occ red antennae ^{fairly} common
2 acc base like - Melanophid
n sp green tarsi very loc
one one colony in ^{low} puasache
sprays covered a tangle of
vines & D. chloped also.

ach minimipennis fairly
common in grassy spots
in this jungle - Uelau

the wing occ more in
open. All specimens in
jungle on ground & trees

vine covered. / Quot
in high green grasses
in opening in jungle.
The new Emelacophilid is
a bush tangle cover -
not active but hides
very skilfully - Dichopet
makes a faint tick
repeated at intervals
of about 2x length of
noise - They were
heard in a number
of vine tangles in bushes
& on the fences beside
the road.

$$2768 + 230 = 2998$$

Lomaltā

24 Lake Loma Alta Tex
Cameron Co. Aug 4

An adobe hill covered
w cactuses & low thorny
bushes - In the quiet
cactuses only, Cylindropuntia

1. Stripator in Opuntia
patches on adobe flats
open country - some
small colonies -
2 of the ♀s had
crops full of ripe Opuntia
fruit. Parasit were
yellow & common in
halophytic veg on
flats, others common
on bushes. Williside
J. schaffneri common loc
on bare ad haloph flats
Few Hadrone & Spha
along base of hill in
haloph veg

2998 + 51 = 3049

Brownsville Aug 5.

Large open rats nests in
opuntia all water run
Tabac - Homo toll found
esp under debris &
leaf mold under mesquite
Pycnos all on solid
ground surface under
rats nest. D. clausi

all at bottom -

Quip about found
among twigs of rats
nest above ground -

Haplosphy very common
throughout nests but
almost all myrioph.
& usually not 3/4
grown

$$3049 + 68 = 3117$$

25 Mission, Hidalgo Co Tex.

Aug 5 In low bushes
of desert appearance with
some little grass. Very
few of all but Western
v. common and Paraid
swarming esp in green
weeds - The Western
was found among a
lot of the latter.

P.M. Drilop 5 heard
in esp searching
they are in bushes &
plants often five ft
from gr. Song somewhat
fainter than that of
Brown sp - also I
noted that occ they
would utter faint
chirps and a sort
of buzz which would
deceive one into
thinking the insect

till several feet
way when it was
ally but a few inches
distant. Eucrypt comes
at light and a few Nests
It would seem that the
Eucrypt is as often found
at lights because this
sp frequents roads &
as would be nearer
lights & cry after
more easily than the
others more distant.
Hornioq lit on illumina
tion when I was visiting
Hornilia - Trylot -
plus into lighted.
window striking with
a sharp blow against
my face.

3117 + 78 = 3195

Rehnia

A specimen of Rehnia
spirosa taken at
Danna Texas - has been
examined - It has
been in captivity for
several weeks & is in
a flourishing condition
It has been offered
diff kinds of plants
and also various
grasshoppers, the
large greenest-stained
cicada & other insects.
It did not eat much
veget but devoured
the insects ravenously
and eats much more -
It also relishes water
& drinks frequently -
Its sound is a loud
and sharp szik -

25

mission ^{Aug} ~~July 26~~ Ele. 138

Arphia occasional 1
Mercuria in area of
 rather arid country
 covered with high mesquite
 and a great war probably
 near Koberl spumosa etc.
 1 Hodusa kollana 2 1 a
Hoplosphy dug out of
 rats nest.

$$3195 + 15 = 3210$$

Elev. 175-200 ft.

26 Laguna del Gato, 3 mi
W of San Fordyce, Hidalgo Co Tex.
Aug 6. An small rounded
hills of loose gravel covered
with scattered bunches of low
plants - decidedly desert
appearance - the gravel
Tomocotus common

Westob

In bushes Paraid common
In green low bushes w/
long rather broad leaves
in some places Dichopet
very common locally, 1
Ceratites hanging to lower
side of one of the lower
branches of these, 1 Probac
in grasses at foot of same
Beall's weed Melampyris
found up in a desert
plant fragment growing
in dunes but in other

plants as well - other
mel - Rhabdot? slight
more common esp in
Dichos plant - neither
abdt - She small beetle
very active and elusive
1 Litaneutria ad. in
Dichos plant in on
ground - In wet
soil on edge of water
where low very green
plants grow 1 Tettig &
a few Eucop (1 Taken)

$$3210 + 122 = 3332$$

27 Lyford, Cameron Co. Tex
Aug. 6 & 7, 1912 R. & H.

at night Rehnia vict
occasional - fairly common
in mesquites & other
bushes - most a few
feet fr. ground but
some in top spray of
mesquites 12 ft fr
ground - These latter
were the easiest to
take - They seemed to
realize their night and
would not jump
unless actually touched
even when their resting
place was pulled
down within reach.
The species utter
a number of
different sounds -
the sound described
before under Gregory

is their regular song
when disturbed. They
cease this but often
utter several times
a fluttering objection
while I have heard
the species give a
call note 'yeh' - much
like that I heard *P.*
spinesa give. The
Didoput here make
a very faint strid
all these of the genus
I have taken at
night have a very
similar song -
Daytime - In weed
field & underneath
much sandspur
and some other
grass - Didoput.
fairly common
but somewhat local

in weeds - 2 of large
Melanoplus communis

The bug graceful as
a flier and lives
up in the tops of the
weeds the other more
on or near the ground
2 of Paraid everywhere
common. In sandy
region so much
sand spurs Pisic.
common, Sphar
occurs, Neotoma
same. In sand
pit & along roads
Citrya occ. - 1 Dig
in low weed in field
Letig in low green
grass in pool of
water - The Pisic
would often fly into
low plants & be
reared up. Somont

Robstown Mees Co Tex.

1 Stipator strid. on
plants at Sta on
July 31 and 1 Taken.
1 ♀ on Aug 8 crawling
on waiting as on floor
of s.t. — Well known
in the region as
insects frequently
found in houses.

The song is a
constant, not rapid
and faint zee
zee zee. — So
faint indeed that
a much smaller
insect would not
be credited with
the noise

6003 + 2 = 6005

29 Robstown Nueces Co. Tex
Aug 9. Au Plaine

of clumps of prickly
pear & ^{low} mesquite shoots
w some joint cactees
& other plants in latter
ground betw scantily
covered w dry yellow
grass. In mesq clumps
no of ~~Diaph~~ ^{no. no.} common
1 beaut Melanoplid
near joint cactees
Quoyt costalis common
in colonies - texensis
only occul in bare
spots.

6005 + 36 = 6041

In area of shin oak
growth of low sprouts
thickly covering ground
near extensive thickets
of these trees - Brown
Parasit-like winged
common, occasional
on prairie also. Very
active and owing
to the resistance of
the stiff oaks it
was hard to collect
in spite of numbers.
Sphar? magnificent -
2♂ among these shin
oak sprouts - weak
fluttering flight -
a very few S. Americ
S. lineata common
powerful insects
& almost always very
shy. 1 Arctosa there
3 from tall grass was

1 Cyclopt beaten from
shin oak sprout.

Tomonot occas in our
mos in rather bare
sit. Long Oryphulilla
occasional in oak
sprout area.

1 common Melaeopl
in weeds. Very few
I. citreina on bare
sand hills region.

The Hipp the great
dumby things are
surprisingly quick to
get away and are
almost always alert;
their flight is however
little over 20-30 ft
as a rule.

3974 + 250 = 4224
Fla. trip 1779
6003

occ. on bare ground
in mesquite region

1 Aspilota in weeds
there - Microgaster
very few - but esp. as
Aspilota - 1 Stenomacrus
beaten from weeds
there - Cyclops beaten
from weeds in field
All Chort. there

fairly common.

Aspilota a few and
Aspilota common
in low grass & weeds
and spurs in hotel
yard - Elaphidion very
common along stream
in mesquites.

$$3332 + 629 = 3961$$

P.M. w. torch

$$3961 + 13 = 3974$$

28 Katherine Willacy Co., Tex
Aug. 8. Ele. 26 ft.

Sand much overgrown
w sunflower & other
coarse weeds - weel-
beart common. Hyp-
saessuri in frequent
large colonies. Hespe-
spec. ♀ occasional
in some places fair
abdt. 1 H. pratensis
2 Adelophut. Sph
common, mildly local
A very few Paraid
in green weeds -
P. aequalis common,
locally very abdt.
Pis yellow by 1728
in white sand
quelly where wa
little vegt. Poloco
fairly common. Agrost
occas. rare.

30 Benavides, Duval Co. Tex.

Aug 9. In cleared

pasture overgrown with
various very dry & not
very dense weeds -

Aurethra / occasional

Syrb fairly numerous.

Mercur Vanne

Price same as above for
conquered to more

sandy or loose adobe
spots - S. crist occasl.

common Uel. same -

The hills low & rolling

covered w various

semi desert plants

& clumps of mesquite

& prickly pear -

Lomouot occ. nestob

fairly common in low

spare dry yellow grass

between other plants

or nearly bare gr

10♂ S. obscurus type
10♂ 1♀ S. nigra

In opuntia 1 S. grandis
Several of the Brown
Stip seen - S. ^{white} mitchelli
all but one seen taken
and csd. search req -
only one area of opuntia
was found to harbor
all of these stip -
1 Horvicia in high
mesquites of bottom
lands & in sh grass
(yellow) there in Opia

$$6041 + 95 = 6126$$

June says 95
I say 90

P.M. W. flash. Rhynia
nect ^{fairly common} occasional in

mesquite esp. 1 m weeds.

Harmonia obscur in mesq.

Large brown Dectelids

a few - 1 Stred on opuntia

the other in mesquite on

limb about 6 ft from

ground - These latter

sit seems to be a

favorite one at night

for the sp.

28 6126 + 13 = 6139

Bunawedes Aug 10 -

30

In same weedy field
saw more Arctia
proust. 2/2 " ✓
" ✓ No others seen
Arctias in small
colony in mesq on
edge of field and
occs in field -
except occs in
open spots

6139 + 96 = 6235

500-550

31 Laredo, Webb Co. Tex

Aug. 10. Littigids
not at all common
around edges of
small pools in large
arroyos. On summits
of hills - bare pebbly
ground covered with
a variety of low
thorny for the most
pt bushes & cacti
Mastobler, Toumouot, Vuec
general & fairly
numerous. Lepus
occasional in one
limited area & most
shy very diff to appr.

1 Diaph in bunches of
no green grass in arroyo
Mesquite grows in
very small clumps at
edges of arroyo cliffs

where there is no
other except a very
few just back of this.
careful search revealed
no Orthoptera -

In field of sorghum
mostly cut & dry -
many very pale
Del. vaga - 1 dark ♀
only - Sph. ovatus
Paraid ovatus in
weeds ^{& grass.} - vire fairly
common. 1 Arestea.
Psolo on bare ground
ovatus - 1 Dichrou in
short green grass in
arroyo bottom

$$6235 + 62 + 2 = 6299$$

1 Roach Katherine
1 Pan Hebbrowille
Tex

Aug 12 -

lands - nothing practical
a sandy pebbly slope

covered w mesq & other
bushes - dry yellow grass
between - 2 Dichoptera on
low bushes beaten & 1

Diaph ♀ - 2 ans of same
beaten from low mesq.
this is their favor habit
apparently - At night
at light 2 Tomocot
2 Leucop 1 ♀ Mustob

6299 + 39 = 6338

Aug 12 - Tawako Tex -
All ♀ Lipinus are very
fresh - The sp. has just
appeared - none of the
♀ have slightest trace
of eggs as yet! Rhinea
apicosa found in
mosquitoes about 8 ft
high along edge of
fields - The ♂ were
in the terminal
clumps of leaves
resting on top of these
& the ♂ victoriae (?)
was there also - This
latter has yellow wings
w markings zigzag
& is a worn small
may be an sp. - The
♀ were found
clinging to main stems
just below leaf
clusters & were very

chrysalis - All open
showed long exposure
when cut open for
stuffing - The ♀ had
each but a few fully
developed eggs left.

At night only Nict
taken 10th strid zeeb
zeeb zeeb violently
with ♀ on a lower

branch in term
cluster of leaves but
a few inches dist.

Hormelia occou in
mesq also. 2 deft-
arci melanopli in sp.
on two branches
of mesquite - around
not cordless & were
cautiously seized.

without their moving
no more see the
long & careful search

9 Asaphid in field
of cut sorghum -
small Parasit occur
in joint cactus etc.
Asaphid in drug store
& Tryll domest?
very common in town
& exceedingly active
always in inaccessible
holes in stores walls
etc. give a ratt
ratt ratt - by the
large Parasit probab
was heard rattled
in mesq a loud harsh
Rratt Rratt Rratt.

6338 + 70 = 6408

32 Cotulla, Tazalle Co Tex
450' Aug. 13 In bushy

area much joint cactus
& opuntia w ground
almost bare. Some sort
& vine common mesquite
loc common S. paga
2 in bushes 1 taken.

Rhabd. n. occ in low
spongy-like bush -
beast jt-cactus well.
a few in joint c. can
hardly be driven from
these plants but were
quickly dislodged, jumpy
and fly often some
distance - In the
cactus they can often
be touched without
them stirring more
than to change position.
All Cyclopt at base of
joint cactus found where
it was demolished

I citr and vine common
along R.R. on oaked
ground. 10 Diaph ^{Tamara} on
mess on very tip of tree
leaf cluster - not on
w fore legs not parallel
Stagn on mess.

6408 + 48 = 6456

P. m. R. vict loc fairly
numerous - all in mess
exc 1 in spiny plant (kept)
A very few horn heard
1 taken - a very few
Stp larga brown also
heard & 1 taken 1 huge
Centroz taken on sandy
road in heavy Chaparral
confused by light it
jumped swiftly and
vigorously but without

33 San Antonio Belar Co
Tex. Aug. 15 Very

dry conditions - Rolling
country covered w mesq
& some other bushes
w occurr oak motts
No grass but ground
covered w gum plant
very open & a foot high
The open Southern
occurs - virec &
most in ^{the} colonies scarce
Musode in Chort 10ⁿ
are a fine low heavy
green bushes series of
Dideo taken very local
not at all common &
hard to find 1 Ant
1 Andlyc there - From
Mesq 10 10 a few st
1 Draper on the dead leaves
under acorns in Cyclop 2 Dick file
64⁷¹ + 33 = 6504

In high grasses & some
plants on level land -

Campoplex very local - no
very common there - the series
of ♂ & 1 recent ♀ - One
same level land in dry
& brown
grass weeds, 1 brown ♀, 1 green ♀
There also Parai very
scarce - 2 Stip in isolated
mess low 3 to 4 ft high

1 Schistoc in weeds
1 S. lineata resting in
top of Husacke bush 6 ft
high - 1 Syrb in dry weeds
Xyph common w Campoplex
& sh. wing Mel - as
taken only 2 or 3 nos of
the latter seen.

6504 + 42 = 6546

San Antonio Aug 16 - In
river bottom of S.A. River

among various vines &
rather high dry grasses
on ground M. plebejus (?)
fairly common & Sam
Fordyce Melanoplus seen
& taken there -

On bare wet mud
around water hole
in otherwise dry
stream course Elyes
swarmed. Paratett in
large nos both on & also
in one spot, esp at
head of this spot where
back of the bare places
were rank high green
grasses and ⁱⁿ tall
growth of nettles
& other green plants
In these Artemisia
was common & grass

to take while Trux
was there abundant

1 Sandpiper & 2 Wheatears
& very few Dickcissel
The whole country
examined recently
wooded - willows &
other trees.

$$6546 + 317 = 6863$$

[Faint, mostly illegible handwritten text, possibly bleed-through from the reverse side of the page.]

34 Knoxville, Kerr Co. Tex.

1525-1725' Ameroid -

Aug. 17.

In river bottom choked w
decid trees - along back
water cypress - Underg
shoots of various trees
& vines - 1 large laced
yellow head Decapoda
beaten from vine
~~taple~~ a few Habitans
~~there~~ - Syrph common
1 Ureides & 1 in low
oak on hill side about
100 ft higher both beaten.
1 am Beeble Spines "
^{2 spp}
~~a few Cyclopt~~ these more
numerous on ground
among plants & grass
& under bushes on hillside
Short a few Ellipsis common
& many Tetrigid ones 1 ad

in grassy depression
near bayou - 1 mil

sh w texanus (?) on very
little orth there

On hillsides closely
dotted w trees mostly
oaks 10-20 ft high
Soil quite whitish clay,
broken up small
with fragments -
ground ^{very} ^{scarcely} covered w
fragrant plants (sample)
grasses & other low
plants - Hadrotett
occasional, not scarce
Sphar aeg common.
Trimer spl like fairly
comm, found esp on
steep outcrops - vice
common & very dec
colored. Sph bolli
a few in leaves
under oaks

Anth v acarp in
ground veg 1 tabu
in field at base, Mel
tracens (?) common
about oak sprouts
Mel. lanceol ab w red
leg occasional in
fragrant plant (scap)
Mel phoejus a very
few in field weeds
at edge.

Rhabdot (?) scarce
in ground veg more
nt than ads.

Sampodys mel angulid
occurs in ground veg
& about low oak shoots
& common in ^{low} weeds
about east trees on
edge of woods

1 Amble Mixst in
ground veg at summit
llw. 1 Schustog

There in oak

15. naga in field
on edge of woods
(This set 200 ft lower
than other Schistoc)
on hillsides & in river
bottom in small colonies
I asticus Mustob caput(?)

v. common all over
hillsides esp on lower
open slopes. Mustob
common of locally

fairly common in field
a few on hillsides

Diaph a few on ^{persimmon} ~~dead~~ ~~oak~~
in ground ~~dead~~ ~~oak~~
in oak shoots. Arphia
^{very} a few in river bottom
& field - upper levels
on hillsides a few
individ & 1 or 2 small
colonies - great white
mush battered after

In low sparse stable
field a very few S.
crist, occas S. aegu
very few M. packard
Colonies of Hipp coralli
(a few of these all over
Mills also) most wary
& very diff to
appr near enough to
capture - ♂ the more
active but ♀ a few
farther off. 100-200 ft
Eucop tex 1; Eucop cost
common in colonies,
Large Chort occasional.
Stagmo in ground
veg hillside, 1 small
lace wing Clea there.
On hillside a Teno
& a Hadro were
taken on bare grayish
earth & rock facing
which taken at the

same sweep were
indistinguishable in
color shade & pattern.

All of the Liri bruneri ♀
were recently emerged
& ♀s contained no eggs

Sph. aeg much the
same perhaps slightly
earlier, but very little.

Hipp. had been flying
some time - ♀s had
fully dev eggs most cases.

Arphia almost done
and eggs almost all
laid - much battered

Liri citr well along
& full of fully dev eggs
this last sp in several
colonies in dusty road
about town.

$$6863 + 472 = 7335$$

Kerrville Aug 18, 1880

On plateau - ground
of broken limestone
heavily overgrown
w low oaks in clumps
15-20 ft and about 3 ft.
In low clumps M.
texensis in great
nos. - Long winged
similar sp. very few
& local these clumps
quickly the deepest
bushes and were
exceedingly difficult
to take. M. robustus
there very scarce
Schisto aboluta (2)
occasional in these
esp higher clumps
Arphia curvata
scarce near clumps
of oaks on ground
I belli there occasional

a very few A. masteca
on slopes in oaks

On top in large open
areas covered w low
scanty grass Sph. aeg.
very plentiful, Meoto
communis sp. abdt
E. cost. plentiful
In rockier place

Hadro common

Tyrus in one
good sized colony
most vary. Hipp.
rugos & corallepis
in small nos.

Small Mel sh w
fairly common in
grasses & on edges
of bushes H. sp.

very occ in low
oak clumps / H. sp.
there - Orph. butola
fairly common edges

of clumps - Striped
melanophilid widely
distr not very plent.
Rhabdov scarce in
acacia. 1 Dectid ♂
up in one of these
about 1 ft from gr.
27 in low small
leaved long fruited
opuntia. 1 walk
stick in yellow
grasses at foot of
bushes other gray one
on lower twigs of
acacia - The red
winged arphia scarce
but near luteola -
Trim vire common
Tri bruneri gr only
on rocky slopes
occasul. A very
few Syrb auctis in
oaks low thickets

Boopedon very scarce
in low grasses
Murphya still scarce
there. Cyclop occur

P.M. On limestone
bed of river where
damp & few green
grasses - larger
Tettig common - on
bare rock near
beforement grass field
Atigid numerous -
In river bottom weeds
under trees S. abbeir 1
1 Neuro - In weeds
tall green about town
& Lept Orch ward
taber - Cyclopt in
admir site

7335 + 373 = 7708

35 Flatoma, Fayette Co., Tex
Aug. 19. 475' In tall

bunch grass w few weeds
near post oak forest

Mercuria ~~aeft~~ abdt

Syrb adue abdt

2 sp long wing Uel common

Ue levides 1♂

Ue. robustus scarce

2 Pseudo atrig

A carinata occas

& same in post oaks

Parai occas & in

green weeds -

Quaeric fairly common

T stipator

In green weeds in

low spot Campyla

♂ occas ms abdt

A. meast common

In open cleared

w low scant veget

H saessurei common

in colonies.

Arphia lit fairly
comm.

Psie 2 sp no? fairly
common locally

Mesoc abortiva occur

2 chunky Orchelimum
in post oak & low branch
5 ft from ground

& near top about
12 ft high. I tried
not bud but of
much same as com.

sp. Stagnum no
occs in much grass.

1 ad & strictum no
occs in same

7752

7708 + 244 = ~~792~~

Blatonia Aug. 20. In
stream bottom filled
w live oaks & various
other hardwood trees -
In dense underg. vines
& weeds Ul. tenuis common
a few C. antill, H. aff.
occas. Paraid
frequent In bushes
& tall green veget
weeds etc on edge
Scl. obsc. common
a few Acid. in weeds
& bushes - H. aff. spec
very common in green
weeds like Rosenberg.
In bunch grass
beside n.r. series of
Pseudos taken w
much beating, there
near post oak thicket
a very few Arph.
cristata In weeds

near road at
stream bank

1 Hipp terrestris
In dusty weed every
field M. atlanticus &
other long wing of
fairly numerous
a few Pisid. There
are weeds of field
on edge of bottom
woods M. plebejus
occasional.

$$7952 + 170 = 8122$$

36 Walde, Walde Co., Texas
Aug 21. 1000-1100'

In wash filled with fairly
high green weeds & some
vine tangles with high
mesq and a few clumps
of oak - Campyl common
in tall green weeds
great Diaph swept there
1 Ceratites on " "
and one on " sensative
leaf miniosa on slopes
other Diapher ^{persim.} 2 in tall
green weeds all others
from hill slopes on
" sensative " miniosa
M. glaucipes common
everywhere.

A few Syrb fusc in
bottom.

♂ & ♀ Dido from tall
green weeds there, all
others on " sensat. l "

miniosa on slopes
2 Arcthaea on green
weeds in bottom.

~~Rhabdot~~ rather common
esp on "sl" mine on
slopes

3♂ 2♀ Cleft with Neopla
on very green "sl"
miniosa about 3 ft
high.

A very few Asphid
in bottom.

H. corallip scarce
widely distr.

J. apterus common
widely distr.

J. vire occas, same.

Cyclopt common us
in low plants &
on ground.

Hoploph us found
in rats nests.

A very few S. vaza
on slopes.

Same area on "s l"
ominosa Palmeria
occasional - largest ♀
in green weeds in
bottom. As sun
began to appear noise
at 5.30 this sp. began
to sing faintly in
the bushes.

Stip. large sp. on
Opuntia and in vine
tangles in bottom.

Stip. mitchelli fairly
common under "s l"
ominosa on slopes - 2
in Dasylirion and
a number were in
a rats nest.

Murphy scarce on
slopes. M. texanus
a very few in bottom.

P. M. Arumilia heard
common in mesq
trees after dark - later
fewer stridulating 10 P.M.
1 taken. Nereobius
common in sand-spruce
grass and a series
easily taken w flash

$8122 + 253 = 8375$

Uvalde Aug. 22 at Yellow
Water Hole - Setigids occur
along marquis - Very
common at upper end
in green weeds at stagnant
waters edge - Saw open
rats nest - Hoplosphy
alone - no occasional
no adults.

$8375 + 140 = 8515$

37 Del Rio, Valverde Co. Tex
Aug 22 Ele 900 - 1000' 970'

In Rio Grande river
bottoms - In area
of heavy grasses with
clumps of cat-tails -
S. americanus occasional

Xiph. commun.

Arch. occasional

In cat tails Leptocarpus
occasional

Dichromis
fairly common

On sandy soil near
river overgrown with
willow - a few M.
herbaceus and 2 or 3
S. obscura (latter not
taken) - Back of
this area of sunflower
& various weeds on
similar soil -

M. herbaceus occasional
in spots fairly abdt
1 M. phlegicus

¹ very scarce -
most locally not-
scarce.

Along roads S. curvica
occasional (A few of these
were seen at Walde
station this morning)
On bank of river wet
soil at water's edge
/ Settigid.

$$8515 + 38 = 8553$$

night at light - questor
in large nos. Dryllus
black occasional Dryllus
personatus scarce, a few
Leprus & Eucrypt, 2 Cophis

Del Rio Aug. 23 Ele 1000'-1100'

An rolling hills covered

w low "sawat leaf" minosa,
various low thorny desert
bushes, occas yucca &
Opuntia 2 sp. 1 Hippuris
1 Azorella 1 Lycium 1 Rhus
spumosa, 2 no Rubra
Rhabdotett 2 sp? in
"sb" minosa - all
Rubras there ♂ & ♀
vectors in one bush
vinc general & usual.
On edge of water
hole a few Setigids
& very few Ellipes
In green weeds above
this 2 ♀ M. herbaceus
a few C. fusciprotata
& Dichopt in eat-
claw & other thorny
bushes -

In low area under
mesquites, green
weeds, vine tangles &
some grass.

glauces fairly abdt
Parai same a few

Cyrt (?), Opiera in
grass, not common

B. farinosa
peruviana also common

Sty ^{near} mutabilis (Sty, ^{near} mutabilis)
sens at "near" on
single ground.

Parabac in small
tufts of dry thin grass
there.

$$8553 + 207 = 8760$$

38 Langtry, Valverde Co Tex.

Aug. 24 Ele. 1050' - ¹⁵⁵⁰ 1325'

1309'

Limestone slopes, flats
& hills - rounded. Ground
bare broken up limestone
dotted with Robert spines,
Covillia, Opuntia, Sagebrush,
Daryleron, Fouquieria &
various other desert
plants.

Vinc usual genus
slate 1200' - 1550'

S. vaga on quartz edge
1250'

Boottia no few, scarce
ads very rare on
granite 1300 - 1475'

H. andis 1400'

Very Mestob in one
small area at 1400'

N. few Mesto capitato (?)

scattered over slope at
1400' - 1450'

1237 D. longipennis

at 1000-1050' on level

places. Diaph on mesquite

1300'

Cyclot

~~near~~ Anton near

~~Rio Grande & on
greasewood at highest
elev. (1450')~~

10⁺ Acrocara undulifera

on the same bare slope
of limestone fragments
about where all adult
Boottia were taken

← 1450' - It flew a short
distance where a first
unsuccessful attempt was
made to capture it;
then easily taken

8760 + 34 = 8794

39 Sanderson, Terrell Co. Tex.
Aug. 25. Elev. 2750' - 3140'

(2800')

On flats covered heavily
w/ bush (a sample kept),
some occul greasewood
& mesquite & often
much joint cactus -

Thorns almost ~~are~~
widely scattered tufts
of grass ~~in~~ the open
bare ground in low
places in the open

in greasewood many
is a few of Boottia.

In the down holes
Ligerotia very common
to their depth & but
whirring to be heard
on every side. They
are much more
apt to leave their
nests, but they
swiftly about when

distributed usually
alighting in another
bush but frequently
on the ground, from
which latter place
they invariably spring
into a nearby bush
with astonishing speed.

The note produced
by this species is
much louder and
more rasping than
S. cog or *benzoi*.

Acanthopneuste on same
flats in tufts of grass
in joint cacti (where
cows could not get at
the former). In all 4
were seen in such sit-
ings - one was taken
in grasses near summit
of cliffs in a ravine at 2905'
no others seen there

2 sps

Cydopt fairly common
on figuro bush and
in moder sps on
greasewood - not
scarce in dry water
course in cañon on
"nevada" bush Adiantum?
and of course on hillsides
2750' - 2950'. Black brush
Flourensia cernua

I. nunc fairly common
on flats cañon bottom
and mesas 2750' - 3180'
Green ♂ Atelopus taken
but lost on "cat-claw"
on flats 3000' Cercis of
Sage oval plate
deeply cleft. Legumin
rounded, almost black
with whitish veins
1 mel bod. chi gr. o
figuro bush 2000'
In pots & grasses
nearby in bed of

2800' - 3000'

water course down

center of cañon

and on steep slopes
in similar surroundings

M. texana near scarce

1 Symbula in grasses
at summit of S. Cliffs 2700'

On slopes in varied
vegetation of acacia,
lecheguilla, various

low desert bushes
& plants, & widely
scattered clumps of
stunted oaks (latter
on higher slopes)

1 ♂ 1 ♀ M. robustus 2900'

In low grasses &
plants in ^{the} stream
bed & on slopes

Pseudoser
parabac fairly common

2 Parabac in ^{the} woods

R. lamprolucens
nos of Parabac in green
plants & bushes & 1 ♂ in Parabac

Are pebbly bare
alluvial fan at
mouth of cañon a.
rupum very scarce
all in one small
area 2800' Above
slopes of hills J. yarens
occasional 2800' - 3180' -

1 S. raga ✓ 3180'
1 Stip near cutdulle
in total at 3180'

Forked arici / melang
in bushes and up in
total on hillsides
& on mesas 2800' - 3150'
occasional.

J. praecox occasional
on bare rock fragments
on hillsides, & also
bare spots on mesa,
former place occasional
latter very rare.

2850 - 3180'

Psolocesa on flats!
& on mesa 1, 2750'
and 3180'.

Strep on flats 2750'.
Mestobry furville sp.
common on lower
gentle slopes of all
farms and on slopes
& mesa in a small
meso. 2750' - 2950'

1 D. longipennis on
mesa 2950'.

S. bolli - a very few
in the small stumps
of oak tricket on
upper slopes 2850' -
2950'. ^W a few little
brown ones of Rootett on
Admont! & 5 Dactyl

on hillside 1 on Dillig
on Admont in dry str. bed.

$$8794 + 261 = 9055$$

Sanderson PM Aug 25

On flats - Chely

detritoid heard 1 R. victoriae
on adenosoma - Very
trivial & taken w great
diff. Figuro strid as
frequent as in day time
but not as loud -
moonlight night!

Warning

Watch labelling

B Stenopleura nuda

Some Marathon

mat. (1 ♂, 3 ♀) was

labelled

Puertacitas Mts.

~~with~~ Some Maguire

Ranch (13 ♂, 4 ♀)

was labelled

Marfa



Numbers Great Bend Region

- 1 ~~Libinia~~
- 2 ~~Stagnone~~ *umbata*
- 3 ~~Podocerus~~ *tennis* (?)
- 4 ~~Great~~ *Diapheromera* = *n. mesillana*
- 5 ~~Boopis~~
- 6 *Synbula* *admir*
- 7 " *fuscovitt*
- 8 *Merimnia* *utana*
- 9 " *ovitt*
- 10 ~~Acroloph~~ *variegatus*
- 11 ~~Acrocara~~ *maculifera*
- 12 *Cyba*
- 13 *Boopelou*
- 14 *Ligurotilia*
- 15 *Amphibia* *crassa*
- 16 *Hippisus* *corallinus*
- 17 " *reddish wing*
rugosus ??
- 18 *Lepus* *whellani*
- 19 *Lomonotus* *agilis*
- 20 *Durotium* *haydeni*

- 43 melanoplus laticornis
 44 ~~Photaliotes rubrascens~~
 45 Dactyloctenium n. sp.?
 46 Dichopetala
 47 Revinia spinosa
 48 Styrator near mitchelli
 49 Atelopus mottled
 50 ~~Conocphalus strictus~~
 51 Hyllus stuederi darbbarrfare
 52 ~~Phelipponoma 4-maculata~~
 53 ~~Zygodactylus squamatus~~
 54 ~~Acantopus 4-funct~~
 55 ~~Pradosomy toothed back~~
 56 ~~Anthraxa~~
 57 ~~Varettia carita?~~
 58 Sepius cyaneus
 59 Spharagemon bolli
 60 ~~Ferina solitaria~~
 61 ~~Eutettix variabilis~~
 62 ~~Innumerobius cyanipennis~~
 63 ~~Parabacillus coloratus~~
 64 ^{Rhabd. d. palmeri} Cyclocereus? striped mel.
 65 ~~Phryganetia recurculat~~

- 66 *Dichopetala* 11 ♀
- 67 *Alysiid Townsendi* re
- 68 *Hypochlora alba*
- 69 *Mustobryza obliterata*
- 70 *Hoplomyza borealis*
- 71 *Helastus benjaini*
- 72 *Cecanthus yellow-head*
- 73 *Trimerot near praedara* ^{wide} wing ^{band}
- 74 *Melanoplus rotustus*
- 75 ~~*Cordillarius*~~
- 76 *Trimeroti near latii* ^{narrow} wing ^{band}
- 77 *Mustobryza short* ^{cut} ^{ends} ^{of} ^{wings}
- 78 *Melanoplus near verbaui*
- 79 *Trimeroti lateralis*
- 80 " *citrus*
- 81 *Paroponeata pallida*
- 82 " *wyomanga*
- 83 ~~*Tanipala*~~
- 84 ~~*Aquilaria*~~
- 85 *Atelopus (caudatus)*
- 86 *Hemipyrus variata*
- 87 *Trimeroti* *varia*
- 88 " *citrus*

- 89 *Myiellus caribaeus?*
 90 ~~*Scolecophagus* sp.~~
 91 *Phrynosoma robustus*
 92 *Paragryps robustus*
 93 ~~*Calamagrostis?*~~
 94 *Cnemidophorus carolinensis*
 95 *Stegonotus smalli*
 96 *Salsola linearis*
 97 " *vaga*
 98 ~~*Alysiina leporata*~~
 99 *Rhabdotritia palmeri?*
 100 *Melanoplus regalis-actus*
 101 *Euclyptopus costalis*
 102 ~~*Oligoneurus*~~
 103 *Melanoplus packardii*
 104 *Phrynosoma munit?*

56 = 57 ; 32 = 79 ; ~~30 = 76??~~

46 = 66? ; 22 = 69???

at least 100 sp
 for region

Jan 63

40 Marathon, Brewster Co.,
Texas, Ele. 3940' - 4160'

Aug 26.

- 1 very few 2 ♀ 1 m on rocky soil between bushes
- 2 1 ♀ 1 ♂ only in bushes
- 3 Common on plain in rabbit-weed & grasses
- 4 *D. n. mesillana* very local, common in high grasses in one damp spot.
- 5 very common in grasses - sometimes 7 or 8 in one small bush
- 6 very scarce in same place as 4
- 7 in grasses and bushes on hillside - occasional
- 8 very common on hillside, esp toward top
- 9 very common everywhere on plain & over high grass

* = SEE 63 re addit data

10 2♀ only in grasses on
hillside among bushes

11* 1♀ in sparse grasses
on rocky soil near middle
of plain

12 fairly common wherever
tall grass grow

13 Scarce in grasses
on plain & hillside

14 common in same bush
as at Sanderson which
here grows scattering
on lower levels of plain
and very abundantly on hills

15 occas on hillsides to
plain

16 1♀ as 11

17 1♂ (1 other seen) as 4

18 a very few as 11

19 one ♂ " "

20 a few about base on
adobe almost base

21 very common among

* Sub 3 re addit data

bushes and grasses at
top of hill and a few

down to its foot

22 on rocky soil near
middle of plain scarce

23 fairly numerous as 21

24 1♂ 2♀ on rocks
among bushes and grass
at top of hill

25 in great nos all
over plain & up to
hill top

26 not scarce locally
as 22

27 ~~abundant~~ everywhere

28 one small colony
as 4

29 common about town
on sides its only

30* on rock outcrops
on hill among few
bushes in fair nos

- 31 as 22 not abundant
 32 on bare & close spots in plain surround by high green grasses
 33 very common on hill slopes esp near base and common on plain
 34 1 on hill slope
 35 2 ♀ in rabbit w on plain
 36 fairly common wherever grass grows rank in damp spots on plain
 37 3 ♂ in ✓ bushes on hill
 38 in great numbers in bushes on hill & in damp wet common on plain
 39 common in rabbit & grasses in damp spots very local
 40 a few in green ^{damp} grasses on plain
 41 much as 40 ^{& in rabb} & grasses ^{on plain}

42 same as 40

43 a very few in one spot as 40.

44 common in grassy (high green) areas on dry plain.

45 in rocky slopes of hill on ^{bare} ground between bushes & grasses
♂ ♀ in white

46 not only not occur in much as ⁴⁴ on ^{low} weeds in same

47 in acacia & sweet flower bush on upper slopes of hill ^{seen} all seen captured

48 occur as 47 but on ground & also

one or two in ~~bushes~~ small areas of tall grasses on plain

= Su 63 re addit data

49* widely diste
everywhere on plain
& hills - usually on
ground among low
grasses & plants but
found in high grass
areas on plain, in ^{small}
vine tangles in wet spots
1 in thorn bush 1 in
greasewood & 1 in liquor
bush

50 very scarce in high
green grasses in wet spot

51 on ground as 50

52 no not scarce on
plain & hills in low
green grasses.

53 on ground & in liquor
bush on plain (25)

54 in grasses in dry
spot.

55 on liquor plant 1 ♀

9055 + 600 = 9655

Marathon Aug 27

6. not so scarce - occasional

7. a very few as 6 also

8. 2 seen on plain far
from hills

28 along RR also for over
100 yds seems to prefer
places where there is
tall grass w small spots
of bare ground - almost
always alights on ground

29 a very few out on
plain in poor spots

30 a very few also in
places strewn w rock
fragments on plain

32 local acc in esp
columns - flies with
a peculiar low swift
but fluttering flight

38 scarce over most
of plain however

56 very scarce in
one area only of high
green grasses intersp
with various other plants

$$9655 + 240 = 9895$$

41 mts near Maguire Ranch
Elev. 5600 - 7000 ft. Aug. 29.

Jess Davis Co. Texas

8 common on mountain
sides in ~~the~~ high bunches
of grass from ~~to~~ 5800' up.

12 common in grass at 7000'
a few on lower slopes
down to camp

19 occasional on rocks

outcrops esp, near grass
up to 6500'.

21 common almost, widely
dist'd over mountain
slopes from 6400 up.

23 very scarce up to 6500

24 fairly numerous in
grassy spots from camp
up - up on hill top

"*fastuosus*" at about 6600'

25 very scarce indeed
up to 7000' where ads are
well taken

27 a very few - almost
all in "signature" country
near 7000'.

29 fairly common in
bare spots near stream
at camp - 1 ♀ at 7000'

34 very scarce on
north slopes near grasses
♂ ad at 6900'.

38 1 ♀ on bare rock
near bushes at 6250'.

45 1 m on north slopes
6700'

48 1 ♀ seen in *Yucca filamentosa*
at 6600' & 2 ♀ in long
spruce opening at 6450'.

52 m only seen near summit
at 7000'.

53 1 ♀ n at 7000' beaten
from grasses under oak
(Conceptle kept)

57 1 ♀ m in bunch of
high grasses at 6750'

58 not scarce scatt.
~~over onto slopes from~~
5800' to 7000'.

59 usual about clumps
of oak (referred to in 53)

~~60 yellow at 5800' on bare
rocks. frequent slopes dotted
w scattered bunches of
grass & a few oaks
not uncommon in~~

~~"prairie" on ground
among grasses at 7000'~~

~~61 from camp to summit
very scarce indeed in
grasses - or very small
not ext. scarce.~~

62 a very few on rock
outcrops at 6200' to 7000'

63 not ext. scarce in

grasses esp in fracture
at 7000' - from 6300' up

64 a few under plants
along ~~rock~~ near camp

and very scarce in
some places (which
are also scarce) to 700
ground usually grassy
is practically no plants
65 2♂ only at 6800' as 60.
66 1♂ in crevice of rocks
among very scant plants
at 6550'.

67 1♂ on rock among
grasses at 6500'.

68 1♂ in ~~at~~ near
spring of white sage at
6000'

69 scarce in pastures
about camp

70 1♀ under board
mailed to cat (a. 53)
at camp

$$9895 + 200 = 10095$$

1st M. Aug. 29 at Maguire's
& down cañon - Upper Sonora

71 common in colonies
among boulders & gravel
in middle of wash &
also sometimes in green
plants on boulder ground
along edge of wash.

57 ♂ & ♀ under oaks in
valley bottom among
sparse plants & very
few oak shoots etc.

7 1 ♀ at 5700' in green
plant under oaks on
hillside 1 ♀ 5600' similar
place but in valley bottom
70 series found under Bose
bark or alligator bark
juncos

59 occurs under oaks
in valley bottom

At night same day
about Maguire's.

Chiaethus 72 abdt in
oaks - song a monotonous
incessant pre-nee-
pre-nee w no variety
Hoplosphy⁷⁰ in fair nos.
Singing in stone walls
& about boulders esp-
almost identical with
H. signatus - a
nervous quick straggled
climp. High pitched
53 not very abdt but
not scarce - in clumps
of oak shoots - song
ze-zee ze-zee ze-zee
usually 3 times - watched
one - The insect runs
about on up and down
the branches nervously
and every few seconds
stops and raises its

wings giving the high
pitched tinkling note
which is very loud for
so small an insect.

Like a few in any sort
of plant bush or tree
climbing gingerly about
and giving very occasional
its faint hissing stridal
which can scarcely be
heard at a distance greater
than 6 ft.

69 occasional in open
spots in wall covered w
low green grasses.

This beautiful region is
much the same from
5000 - 7000' - the valley
is quite filled with oaks
with occasional albiz bark
juniper and pines,
underneath there are
very few bushes but

almost everywhere
much green grass

The hillsides are not
like this but the trees
are much more scatt
& the grass is higher
& grows more in bunches
otherwise there is pract
no difference.

10095 + 121 = 10216

Aug 30 in pasture up Tinaja
cañon about 5800' *Nustob*
oblit - common 10 *Trinero*
pract gr wide way 62 TB.

10216 + 27 = 10243

42

Forest of Pinus ponderosa

at 7500' ft on n slope
of mt. rising up to
Swinnore Peak, Davis mts.

Aug 30 all in abdt-

green grasses & great var
of Canad Zone appearing
plants.

64 common near and
by far the most abdt
sp on these mts on the
slopes from 7000 to summit

51 one fine ♂ at 7500'

60 scarce in this vegt-

62

10243 + 13 = 10256

43. Mount Livermore Peak
Davis Mts. Jeff Davis

Co. Tex., Aug 30, 1912 Elev.
8382 ft. Nothing on terminal
rock peak - In rank grass
grassy spots filled w many
flowers all others were
taken except *Cycloc(?)* which
was also common in the
dense thickets of scrub ^{bush 6 ft to 3}
oak - *Allybark juniper* &
Junon the only trees -

25 1 ♀ in pasture at 8000'

27 a very few at 8200'

& below in pastures

34 1 m at about 7900'

74 no record about
scrub oak in heavy
weeds on upper edges of
meadow spots up to
8200'

52 a very few up to
8200' in pastures

59 1♂ at 8000' in
oak thickets

60 3 *Gysenia* in grasses
in meadows at 8200'

63 ✓ 1 to 60

61 1 in the meadow
at 8000'.

62 a very few in
rocky spots on slopes
up to 8200' - (taken 8-8200)

~~64 common - The only
sp so at 8200' both in
some oaks & meadows
not a trace of difference
between 8200' elevation
in these spots & the
hillsides near camp -
The many wild flowers
give a deceiving app
of casual or at least
transition zone~~

10256 + 38 = 10294

44 / Foothills of Puertacalás Mt
Paredes Co. Tex., Aug. 31, 1912

Elev. 5100-5200'

75 common in top grass on
hillsides

65 on rubble spots of hillside

35 one in green grasses near
wash

76 on rocky ledge at top of
hillsides

20 on bare adobe wash

$$10294 + 46 = 10340$$

45 / Lower Lempia Cañon,
Jeff Davis Co., Tex., Davis Mts.

Aug 31, Elev. 5150 - 5250'

2 dictyopet. 1 on waggon cover
in a. m. at Mayures (The
more decayed) other in dwarf
walnut in canyon at 4900'.

73 2 only on green low
grass slopes -

77 2 as 73.

All others on the same
green low grassy hills which
are really foothills of Blue
Mtn etc - 78 in "arrow weed" or
"pod willow"? and in gods doubt
in wash with dictyopet.

$$10340 + 37 = 10377$$

All Pluristis woods in
small dwarf walnut
trees in wash at
4900'

46 / Marfa, Presidio Co. Tex.
Sept. 1. Elev. 4650 - 4750'

79 in colonies among
washed places along
edges of heavier grass
in valley bottom.

73 in fair nos same
place as 79 but not in
colonies

75 common in low
green grass all over
prairie etc in heavier
grass

71 in grasses in wash

80 1♀ in muddy road

81 in grasses on hillside
and esp. in ^{about} *Yucca filamentosa*

82 very scarce in low
place with higher green
grasses.

Are *Drosophila longipennis* ♀
not taken - others seen
at 44.

10379 + 277 + = 10656

15 *Sceloporus* and 18
Campylura in

separate paper -

2 1 mi N. Ridge Spring
Brewster Co. Tex. Both
in bottom of basket
draw - Sept 2.

$$10656 + 2 = 10658$$

Sec 67.

47 Garden Springs,
Brewster Co. Tex Sept. 2

~~83 fairly common on
hillsides and lower
near streams in cat
claw & densely clucking
over the ground between
bushes. in mesquite
etc.~~

~~84 a very few in
grasses growing
under bushes near
streams~~

Suif Mulacopler
long w. in bushes
along streams fairly
common very shy
& hides in bush
quickly In grassed
area nearby nest
occid. Tigrot
fairly common in
black brush

10658+68=10726

See 61

3160 71

48 Hackberry Creek,
Big Bend Road,

Brewster Co. Texas. Sept 2

Two plants covered
w cat claw, black
brush, greasewood
& other desert plants
with - legume common
over plain. A bird
very dusky day
& few at night.

Best seen in
greasewood at night.

1941

Jan 1st - [faded text]

Jan 2nd - [faded text]

Jan 3rd - [faded text]

Jan 4th - [faded text]

Jan 5th - [faded text]

Jan 6th - [faded text]

Jan 7th - [faded text]

Jan 8th - [faded text]

Jan 9th - [faded text]

Jan 10th - [faded text]

Jan 11th - [faded text]

Jan 12th - [faded text]

Jan 13th - [faded text]

Jan 14th - [faded text]

Jan 15th - [faded text]

P. m. Same.

47 a very fine young
strawberry in very narrow
I. Inga bushes - 1st taken
from N. side of 15 ft
from ground. Their note
is very like vachina
but much sharper &
louder - Razit
Razit Razit Razit.
Razit.

85 Three heard on
various bushes, ground
cat-claw etc. a very
faint strid 1st taken
all found on first
Inga ground along
edge of wash on "rouwood" ^{side}
by grass amblycypsis
lost.

at night all seen
when following

St. californica

2. 40° ✓ 2 was good
80. 30° ✓ " "

In this area after
dark Cyclops
& Hoplosphy were
heard on the bushes
on the plain see
numbers none of
the latter taken

$$10726 + 23 = 10749$$

See 60

2725 ft.

49 Double Windmill,

Brewster Co. Tex. Sep. 3.

Very low on edge of
valley wash from Santiago
cut at their eastern
extremity.

87 mound on bare above
between ^{very} turned deposit
berms - a few found
on bare above wash
between small berms
3 mi. or so on Bogallos
Road.

88 very ~~refined~~ same
sit as ~~87~~ 87 only

10749 + 47 = 10796

See 59

3000 ft

Perimeter Gap, Sep. 3

50 desert spules 17

~~very small and many~~

dark rock covered in

lechuguilla yucca

some desert bushes

a few tufts of grass

Nothing common

etc. etc.

Peromyscus leucurus a

few on hillsides

near grass tufts

10796 + 8 = 10804

51/ ~~Belted Dry Creek and
Mulbox Creek Sept 4~~

~~Barren wash dotted
with sun balled black
brush yucca wood etc~~

~~10804 + 8 = 10812~~

10804 + 8 = 10812

2 Avery Cañon ^{Sept 4} ↓

1 L. texana Tornillo Wash

4 Small Spis - in cañon
wash - nest in green
plants willow like Dec.
nets.

10812 + 7 = 10819

52 Dog Cañon Sep. 3
Brewster Co. Tex -

~~Horradia common in
mossy and other bushes
& attch to light brown
Stages & stages -~~

10819 + 11 = 10830

53 Batis Nivelle Sps. +
Government Sps. on long

slope of Quins - Sept. 5.

El. 3600 - 3800' ft. much
yucca, sachequilla, greases
etc w a little grass on
bare adobe between.

$10830 + 33 = 10863$

Sep 8 1 Parapinnula

3700' in grasses
under desert bush
others seen as far
down as Nivelle Sps

54/ moss will. Chisos Mts
Sw. Sept 5, 6, 7, 8 From

4500-5000'. Hillsides
& higher ground covered
with high grass, much
scattered some large agaves
around *lecheguilla* &
many bushes along
the water courses
with numerous
groves of low bushes
along sides of foothills.

1 a few on steep ground
on hillsides up to 5000'

2 1/2 at night climbing
w. road toward plant
to junction of road 4800'

7 a very few about
bushes in valley water
course 4500'

8 scarce in grasses
on hillsides (acc. 55)
but great numbers

12 occurs in grasses
in wall & on hillside

4500-5000' ms abdt-

21 a very few on
ground in valley &
on hills (see 55)

23 scarce in valley

24 on hills 4800'

34 a few ms in area
of green woods on hillside
at spring 4700'

38 fairly common in
bushes at all elev

39 same

41 (?) a few in stream
wash in wall & in
as 34.

43 very scarce as 34

46 fairly common at
all elev in bushes
woods & grasses

48 occurs as 34 and
in hillside (see 55)

57 rare in grasses on
hillsides 1 in valley

wash at 4500'

58 common on hillsides
(see 55)

59 scarce about rakes (see 55)

61 37 at 4800' in
short grass "pasture"

63 2 only at 4600-4800'

64 very scarce as 34
(see 55)

74 (?) on hillsides
in scrub oak no d. a. d. =

83 on hillsides a few on
4700-5000' (see 55)

30(?) a very few on rock
slides 4700-5000'

89 a few in grasses - 2
at to light - chiefly
grasses & short succulents

91 1 ♂ at 4500' in
valley on pebbly ground
among grasses 1 ♂ as 34

92 This species is everywhere
on hill sides from 4700'

up in low oaks (15-25' high)
and at dusk begin their
incessant song which
continues thru the night.

It consists of a single
rasping ^{quick} quack repeated
incessantly & deliberately.

Am startled into song
this note early in

the afternoon by hearing
a single bird over the
cañon. They are in

the trees usually near
the lower branches perched
up on the twigs among
the leaves - very hard
to locate but will

begin song again if
one keeps still under
them a few minutes
When appr they

invariably jump
down into space
(unless quickly seized)
and upon hitting the
ground at once begin
to crawl away in
search of safety - When
seized they often utter
their note in a excited
way.

10863 + 154 = 11017

5/ slopes of Lost Mine
Peak, Chisos Mts., Tex.

Apr 6. 5000 - 7500' No
difference is found in
Arct. The ascent in the
cañon follows the up the
narrow water courses. Below
the upper cliff is decid
trees thickly packed, mostly
red? oaks - On the

hillside there is
much oak brush w
open places of rough
grass - Above 7000' there
are various junipers,
pines etc. on the crags
& stony ledges w a little
Canadian appearing low
plants - At this height
only on the same were
D. fumigata
Diapher. mesobry subripa,
Hel. robustus(?) & Sph. oak.

slopes of Lost Mine
Peak, Chisos Mts., Tex.

Apr 6. 5000 - 7500' No
difference is found in
Orto. The ascent in the
cañon bottom & up the
narrow water course, below
the upper cliff is decid
trees thickly packed, mostly
red? oaks - On the

Hillside there is
much oak brush &
open places of rough
grass - Above 7000' there
are various junipers,
pines etc. on the crags
& stony ledges a little
Canadian appearing low
plants - At this height
only on the same were
D. pumgrata
Diapher. rustobor subrep.
Hel. robustus(?) & Sph oak

slopes of Lost Mine
Peak, Chisos Mts., Tex.

Apr 6. 5000-7500' No
difference is found in
Ortiz. The vegt in the
cañon bottom & up the
narrow water courses below
the upper cliff is decid
trees thickly packed, mostly
red? oaks - On the
hillside there is
much oak brush &
open places of rough
grass - Above 7000' there
are various junipers,
pines etc. on the crags
& stony ledges a little
Canadian appearing low
plants - At this height
only on the same were
D. jungrata
Diaphor. mesolepis subripes,
Ret. robustus (?) & Sp. coll.

3 on "rabbit weed" very scarce at 5800'

4 *D. fumosata* & *longiflora* a very few all way to summit

8 common from 5500 up to 6000' a very few up to 7000'

15 1♂ at about 5700'

21 not scarce on hillsides up to 7000'

1 fine orange wing ♀ at top.

30 very scarce as given yesterday up to 6500'

38 none seen above 6000' not common above 5000'

39 a few up to 6000'

48 up to 6000' scarce

59 common in oak brush on hillside & 1 in oak dump on summit

66 A few in plants
up to 6000'. see note at bottom

74 very common in
oak brush up from
5500' - 6500' a few on
summit.

83 1 ad ♂ at 5500' a
few on hillside up
to 6000'

90 1 in bushes at 5800'

$$11017 + 91 = 11108$$

P.M. (54) $11108 + 11 = 11119$

Small morua like sp.
from gooseberry wild
at about 5800' elev.
on inter side.

✓ 1 at night in Aulana sp.

heard at
not
with
5
of
parent

Dichopt note zip-a zip-a
zip-a zip-iz-iz-iz - Ticking
subitant the last given only
occasionally & very rapid

4600 - 5000'

56 / Cañon back of
Palliser Bluff. Sep. 7

Cañon of narrow gully
wash edged by low oaks
& few bushes of same
on broad sides - wide
high ground in cañon
covered w. tall high grass
& dotted with sotol
some cactus etc.

93 No v small, 1 $\frac{1}{4}$ grown
on "Sanderson" bush on hillsides
2 ^{mm} in wash - 1 adult in
other heavy bush on hillside
1 ^{mm} in low "acacia (kept)"

The ad sprang out of one
bush and then up into
another resting there against
one of the brown stems
below the terminal
leaves.

94 ^{bush} beaten from low veget
in valley bottom

2 a few in valley bottom
in low plants & in grasses

3 10³ taken from low
veget on hillside 4900'

4 ^{B. To qu} on acacia low in weeds
at camp 7 in 1 bush

11 100' below in sotol

21 100' above in acacia

7 a very few on hillside
to 4900'

15 canon bottom very
scarce 4800'

19 a few in ^{narrow} wash of
canon bottom 4700'-4800'

37 10³ in sotol at
4700'

42 in "weeds" (kept) at
camp

45 very few on hillside
at 4700' & 1 in weeds
at camp

~~faint camp~~

~~63 in dry grasses on
hillsides at very few~~

~~4800' - 5000'~~

~~72 oaks in canon bottom~~

~~only as tall as 4800' - 5000'~~

~~91 in wood at 4800'
on gentle slope up
to hills~~

~~95 occur in oaks
in valley bottom - very~~

~~dry - 4900' - 5000'~~

~~one on hillside in~~

~~at 5000' seen just
at 5500'~~

11119

+353 = 11472

~~type gracilipes/cercata~~

~~Acethana has a sulphur~~

~~yellow stripe down~~

~~the centre of the~~

~~abdomen centrally -~~

~~this species appears~~

P.M. a colony of Ateuphys
found just below camp
smoothly in those bush (kept)
one in quickly leaf " " "

" " sotol

2 ^{incl. ♀} yellow flower acacia "

Their note is a nervous
zip-zip-zip-zip
very sharp and distinct
nearby but with remark
little carry.

Hoplaphys in dead oak
leaves at base of cliff

at the to light 5300'

♂ + ♀ Diaphis ^{femorata} round head

in oaks 12 ft from ground
climbing about terminal leaves

heard about camp 4700'
very scarce

11472 + 28 = 11500

(54) Apr 8.

96 1st Millide 100'

above camp

97 1st ✓ same

$$11500 + 75 = 11575$$

[Faint, mostly illegible handwritten notes and bleed-through from the reverse side of the page. Some words like "same" and "1st" are visible.]

57 / Nuville Spring, Brewster
Co., Tex. Sept 8. Elev. 3150-3300

In considerable patches
of joint cactus - *Cylindropuntia*
(*Cholla*)
occasional *Cylindropuntia*

Chadon palmeri - Found
(*Neotoma mexicana*)
in small ones very locally
was in joint cactus but
a few also on ground &
in all-thorn. The ♂ are
prodigious leapers &
very quick but ^{habit.} jump
into thickets of bush
or cactus and there
stay motionless unless
appro. closely which would
make them easy to
take were it not for
the invariable cover
of thorns & spines
& the great leaps they
are ^{capable} of even when in
the net

P. concinns in all-thorn
very rare

Striped melanophid - a
very few in bushes & once
low veget along wash
1 Hornu eleg in joint cact
& very few Aphantus
in grasses under thorn
bushes & jct cactus 10/17/22 taken
Settends along short
stream fr spring in
scraggy patches of low
grass grasses.

A. few ms of Chenitodes
seen in all-thorn.

Cyclops & Prot not
occure in grasswood
where bush is here
dominant on the
flat edges of the
slope above the rps.

$$68 + 1 + 11575 = 11644$$

1 R. spumosa ~~in~~ ^{solitary} ~~to~~ ^{of V}

willow tree in wash 25-30
ft from ground.

Home ~~cor~~ ^{occasional} in
bushes & green veg
in wash stud

11644 + 7 = 11653

low basaltic
Wash in volcanic hills
7 mi. S. of
58 / Petio Bone Spruce & 2 mi. S. Persimmon
sap. Brewster Co. Tex Sep 9

Elev. 2720'

1 *R. spirosa* in large
clump of mesquite on
edge of wash - very
common but very hard
to take

1 Set at light
T ter not scarce on
adobe wash places ^{small}
down from hills & on
edges of large adobe
wash.

H. aridus not scarce
on pebbly volcanic washed
soil at bases of hills

11653 + 58 = 11711

3000 ft.

59 Pecos Mountain Nap Sep 10

The hillsides covered
w/ lechuguilla, some
pout cactus & scattered
bushes -

Ceph. in ~~st~~ cactus (~~stems~~)
(Tassayilla) ~~occasional~~

~~Read paleontol in~~
~~(Microsoma Ingroup)~~
~~numbers in lechuguilla~~
~~& to be found also on~~
~~ground & in other~~
~~plants & very few~~

37 Atalapha all found
resting head down on
inner surf. of inner
lechuguilla bands.

1 Schisto sp. in
bottom of small
cañon. in holes

They ~~are~~ ~~very~~ ~~active~~ ~~over~~
~~hills.~~

Paraph ~~not~~ ~~found~~ ~~in~~ ~~graves~~
~~under~~ ~~bushes~~

~~Anacardium very
abundant in similar
to last~~

$$11711 + 95 = 11806$$

60 / Double Windmill Sep 10
2725 ft.

Temp $\pm 115^{\circ}$ with very
active I could be followed
only by shadow on bare
bleached adobe between
dry scattered bushes -

$$11806 + 25 = 11831$$

3160 ft.

Post

Sep. 10

61 / 3 Stagwren at light
after thunder storm -

Great plane buzzard
near Double Windmill
flying over plain of
sagebrush, juniper &
blackbrush

Great yellow warbler
buzzard same

3 miles toward
Hackerberry Creek

62. Garden Spring Sep. 11

~~Taraxacum~~ common on
Hillside esp in low
plants & grasses chewing
& jumping lambs
about on ground of
broken ~~rocks~~ rock
Arctostaphylos *sinuata*
in Clematis *scabra*

11831 + 111 = 11942

63 / Marathon Sep 12, '13

49 ocellus in grasses tall

near mid-valley with
43 which is fairly abdt
almost all recently adult.

11 as given before the
no in rabbit weed -

96 1♀ on ~~flame~~ sew

83 this sp is found
from Garden Spr
in very com nos
in & about the bushes
of the glair to the
small hills 1 com so
of Marath. where the 1st
was taken Sep. 11

49 The note of this
sp heard in the area
is a zue-zue-zue-zue
somewhat res X. structure
but louder & sharper
The not as loud as Atel sand

100 1² m high grasses
on plain.

101 1/2 m on low bush
on hill

102 1² as 100

$$11942 + 461 = 12403$$

Phrynosoma sp 3² on
pebbly plain
same loc as Corocara.

30 This "hill sp" is found
on rock outcrops by
numerous fragments
where these occur
on plain as low
as Marathon

$$12403 + 46 = 12449$$

See 46 continued 5 pages forward

64 / Sierra Blanca Tex.

Sep. 13, 14 Alt. 4524

El Paso Co. Plain
& hill slopes of broken
rocks fragments covered
w grasswood, black
brush some ^{low} tree yucca
sotol etc scarcely any
grass underneath but
that green. Adobe
flats covered now
w tufts of green grass
in some places dotted
w tree yucca.

Hills & valley ground
J. strepera local occur
~~But not plant in grass~~
Squid occur & blackbr
& 1 l. next on beaten
On rocks fragments
of hillside / Proboesa
H. ardes - In green
tufts of grasses w

adobe wash 2 sp
Paropomala v scarce

~~2 Tetaneutria on bare
adobe in company w each
other. 1 Ateloplus there
in leafless spike-bush
1 Didropet beaten fr
quaswood~~

12449 + 54 = 12503

Tupedulus on Adobe rare
ignero common & widely
dist in black brush
two sect present in cert
areas.

Campylo in well watered
black brush

2 Mel and gr along edge
of same

grass & scatt brush on
adobe few Parop 2 sp Alpeca

V. B. 107 also T. strema

12503 + 50 = 12553

65 / Etholen El Paso Co. Tex
Sep. 14 alt. 4650' - 4750'

1 Caryophylla & name Ligularia
in bl brush; in same area
in grasses few Parop
1 Aurea in 1 Culocara
occasional Mestob On somewhat
rocky ground & adobe between
bushes J. styriaca occasional
1 in Tropaeol on adobe
near scant grass.
among bl brush.

$$12553 + 27 = 12580$$

66. Quintan Mts. El Paso
Co. Tex. Sep. 14. Elev.

4800' - 5400'

1 S mexicana in pocket
on hillside at 5200'

M. texana peruv on
hillsides in grasses

M. aridus, Rhodo 1,
^{few occur}

serp peruv Melanop

occid, S. fus worth

occid in bushes ^{sotal}

The latter in grasses on
hillside. Rhodo

in grasses at about
5200'. Stirap in

grassy pocket at 5400'

1 Tyrus at 5000' on rocks

1 Stag in green bush
at 5000'

1 Heleant
at 4750' on jubby
wash

$$12580 + 24 = 12604$$

XXXXX

add to 64' low desert

Mills to N. Sierra Blanca

Sept 14 Elev. 4524' - 4950'
in scattered greasewood

1 At macroscler 4950'

1 ad Cy conical 4900'

3 ns " " 4700'-4900';

1 Mr. Lirika 4750' hillside

2 ns Acocara 4600'

on plain

1 Diaph in green 4700'
yellow flowered bush

2 Pseudos on hillsides

$$12604 + 63 = 12667$$

Su 67 continued 7 pages ~~100~~ forward

67 Franklin mts. El Paso
Tex. Sep. 15th. Elev. 3800-5500'

In small patches of grass
usually in lecheguilla
or joint cactus Acaatherus
occasional, the males
very active jumping flying
& riding in most inaccessible
places females relying on
riding more often but
when roused out very
quick tho not as fast from
3800' to 4800' usually
along small water courses
on hillsides

Mur. tawana on more
bare slopes of lecheg
some greasewood few
grasses & other desert
plants from 4500' to
summit - 2 Aprus
♂ at 4600' ♀ at 4900'
Mel. desert scarce

in rabbit wood & other
low flats on either
side 4600-5000'

H. aridus on bare
muddy wash at 4000'
Acroplex in greasewood
at 4100'

Horvilia in greasewood
in flat 3900'

Ceratites in greasewood
3900' in flats to
summit - much the
most plentiful from
about 42-4500' where
every other bush (while
there are rather scatt.
among great var of
desert veget) would
disclose from 1 to 3
on the mesa & flats
of solid greasewood the
insects were by no
means plentiful

the insect nests during
the day on the undersides
of the terminal twigs of
the bush, head down
with fore legs extended
together & antennae between
the tips of these just
touching the stem on
which they rest. Hanging
loosely - The only
individual found resting
on the tops of the
leaf clusters were 2 or 3
of the greenish phase no.
A nymph when
removed a 2 foot from
a green bush climbed
about nervously up
grass stems and
over rocks - at first
it was erratic but
quickly afterward
made for the bush

climbed up to a
terminal leaf cluster.

I assumed the usual
attitude.

Paros very scarce in
grasses of flat at
3800'

M. Verbaceus same
& Arctophila (not taken)

Boottia common in
greasewood everywhere

Acanthus in beating
greasewood at 3800'

Opeia (not taken)
very scarce in grasses
on upper slopes 4500'
-5000'

Syrphula same
4200' - 5000'

$$12667 + 221 = 12888$$

68 / El Paso - Rio Grande Elev. 3700'
River bottom Sep #7¹⁸ - (kept)

In weeds, "rabbit weed", mesquite
& wild sunflower growing
rather thickly on bare adobe

3 Diapiter, 2 Stagnone
beaten from "rabbit weed"
series Harvel beaten from
same & low mesquite
mel. aridus fairly
abdt in same.

Merrill same there
this place
mel. herbaceus common
same

M. differ same
M. yampes very usual
about mesquite

S. shoshone fairly
common there place.

J. vuc very common
in open spots.

J. rubripes? common locally

no more grassy low spots along river ex.

Hesperot all beaten from "rabbit weed" no more seen.

Europt tex & conu in bare adobe.

Acrolo regalis?? common in low thick brush.

M. latrans occurs in woods five-rub same. I. conu makes a whirr as it flies up up σ^7 of a number (usually 4 to 6) distinct rapid ticks -

I. neoripus makes a continuous whirr not as sharply - also more pronounced in males.

E. tex makes a similar whirr to latter but more distinct. These noises can best be compared to leaving wire sound.

67 continued — On mesa
at 4000' 1 ♀ Aerocara mesa
on bare ground dotted w
low greasewood & scattered
over with "after rain, yellow
daisies" — 1 Mesota capito
there also — 1 Alpeia in
grasses on hillside at 4200'
a few M. texana there also
Scirpus stevensii occurs on
mesa top, S. ovus
common otherwise
practically 0.

Phyllocnistis & Acanthodes as
before 1 Hel. arida mesa top, 3900'

$$12984 + 62 = 13046$$

Sept 16

69 El Paso, At night 4100'

2 Arctostaphylos ♂ in ballast

went under arc light

All others etc Hornblow

(plants were in grass

strip) under light

$$13046 + 30 = 13076$$

Culberson

70 / Kent ~~Et Paso~~ Co Tex Sept 17

Elev. ^{3900'} ~~4000'~~ ^{4100'} ~~4200'~~ Adobe draw

dotted in some places heavily
w blackbrush; some areas
of green loose growing grass-
occasional tree yuccas, sotol,
Kobresia & other desert
plants. Liguro common
in blackbr on flat.

Mastob occurs in
grass spots, Operea
there very few, Phleb
also 2, 2 Trime latic
Ambicara there occurs
1 Cordill also,
1 Acanth in grasses
under bush, 1 Acanth
at night strid loudly
& continuously on a
tree yucca, 1 Phleb
on sotol, Mel. long
on blackbrush - 1 dry
few Mercuria in tall

grasses near water on
R.R. 1 Ceryle in

grassy spots. 1 Pezomachus
beaten from low tufts
of green grass. 1 Dickcissel
on low bush. Hopliphila
a few found in juv. in
those taken found in
dead scrub & under
dead tree yucca. One
of Atelopus taken at
night ♂ & ♀ from Koberlinia
spumosa, 1 greasewood,
1 in tree yucca others in
various other desert
bushes. none occid.

13076 + 70 = 13146

Hunt Sep 18 - Elev 4000'-4200'
On limestone broken down
plateau covered w scattered
desert veget - chiefly aromatic
green-white bush, sotol, some
Sedum, greasewood etc
great scarcity Artem.
us of Chrysothrix very
scarce beats from these
low bushes + 2 sp red
leg Trinero on Thunb
fills on broken limestone
fragments on best soil
I developed in blackbrush
at 4200. Washing stuck
leaves from aromatic
gray-green bush & most
of Stagnon there & few
in other low plants
1 Phrynosoma at 4100
in grasses in fragments
pebbly wash
1 Setaria from aromatic
gray green bush. Cycloptilium

ward enough at
night under all
desert shrubs - 2 beaten
from Mesquite wood -

~~Hydrophilus (Quadratus)~~

$$13146 + 57 = 13203$$

71 / Pecos, Pecos Co., Tex.
Sept. 18 Elev: 2596'

An adobe flat, ground
heavily coated w alkali
dotted w bunches of
coarse grass, much
low salt bush and
in some places low
mesquite. The bare
adobe ~~Trepudius~~
fairly numerous
but very shy in
scattered colonies.
~~depress. nigra. intricata.~~
The red leg Turner
also on bare adobe
& exceedingly shy -
widely dist., occas.
T. vire ubiquitous
Parop occas in
coarse grasses /
Opica there - 3rd.
longipennis on bare
adobe - see small

area of "salt grass"

at mouth of small stream Cryptulella in small nos 1 Eucotyl 1 Tru rubripes on alkali incrustated adobe

$$13203 + 95 = 13298$$

The study of

... ..

72 / midland, midland Co
Tex. Sept. 19 Elev. 2779'

Slightly rolling prairie
of sandy adobe loam
dotted w clumps of
low mesquite & very
scarcely covered with
low grass. In some
places are large areas
w little or no mesq
overgrown w feathery
yellow grass 6-10 in high
and in the depressions
are areas of green
grasses usually surr.
by heavier mesquite
In one ^(this referred to as "prairie area") area of these
fairly high grasses
& plants with
was found abdt
elsewhere very scarce
In mesq about
depr. under wide

Parusid green nuth
● Rehnia dist several
heard toward noon
strid vigorously but
not as loud as at
night - exceed on
the alert they ceased
singing always before
could be located &
so I were taken in
● great diff - the
bare patches of
ground among ^{short} green
grass there Rehnia
in not large colonies
nesto common, a
few of the latter
everywhere over
plain - ^{under} in Rehnia
● on plain 2 or 3
M. glaucipes; Epb
acetic occur there
common in "prairie" area

A very few Boopis
as Euopt & in "prairie
area" also

Campylac in small
mos in "prairie" area
a few in tar weed in
depression and one
or two under mesq on
plains

Auloc very scarce
in short dry grass
over plain.

Croc maculif 1 ♂
as last

Dactylot 3 ♂ as last.

Phib very scarce
but found in all
conditions

D. longipennis occul
as Dactylot

J. vic occul over
plain, common along
roads

Lepus thulei very
scarce on plain

Hadrot same.

S. latic? 1 on plain

M. different 17 "prairie"
area

2 Hipp rugosus on
plain.

Cec 4-punct common

"prairie" area

Silvanetia widely
spread over
plain.

1 Sty. stevensoni on
thistle in prairie
area, it tumbled
hastily into the grass
below & hid in the
thickest of it.

M. fuscus - a several
in "prairie" area

M. parkardi scarce &
very few in depressions

mel 42-Marathon no
in large nos in
prairie area, widely
dist over plain &
fairly common about all
depr.

M. blue-leg fides-like
common in "prairie"
area only, very scarce
about other depressions

Asphix pseudonict
one esp colony on, one
bare spots among tar-
weed in Pahrana depression

Perop wyone not scarce
widely dist over grass
on plain esp further,
white grass.

Agrost down very
scarce in "prairie"
area only

Mercuria same

mil. larva blue-leg boy
weighed very scarce
in "prairie" area only.
(watch this specimen - easily
confused with others -)

P.M.

S. americana 1 ♀ in
depression.

Musca capito ?? 1 on
edge of depression
in short dry grasses

Tropid fornosus 2
Dance

atyp. n. series

Diapherom series
Taken from small
mesquite clumps on
plain - over area
examined they were
to be found on about
every other bush
usually 1 or 2 or 3 but
as many as 6 taken
from one bush once

NOTE The very small ♀ is adult -
it contained 1/2 developed eggs

They were found
resting on the twigs
twigs & leaf clusters &
differed from Ceratites
in resting almost
invariably with head
pointing away from
bush - the ♂s were
frequently resting
on the top of the
foliage but the
females were invariably
feeding from the
twigs & leaf clusters
in the latter case
usually in pairs

$$13298 + 316 =$$

$$13614$$

73 / Sweetwater, Nolan Co.
Texas. Sept. 20, 1912

Elev 2100-2200 ft rather
rolling somewhat
dessected country of
sandy red loam
dotted w mesquite
trees w very little
very dry grass &

plants on ground.
depressions clothed
with burdock, wild
gourd, sunflower etc.
In river valley bottoms
are other trees beside
mesquite such as cotton-
wood, dwarf walnut
white oak. Deep
prickly pear abound

T. citrina common in
colonies along sandy
banks of stream
T. virens common over prairie

M. robustus occurs in scattered plants under trees in bottom land.

M. differentialis common in burdock & high weeds in depressions.

M. packardii occurs same

M. Paoystrady - common same and occurs in bottom plant veget.

M. atlanticus common locally in low ^{grass} weed patches in bottom

Opria scarce same

Chort 3 " "

M. fuscus nbr 1? "

M. laticornis 1 "

Arphia 2 "

Hippiscus 1 as differentialis

Sordidix 2 "

Syrb fairly numerous same & occurs in low plants everywhere

but esp in bottom land
Rhina victorica a

few record in mesquite
trees & 1 in dwarf walnut
none taken

Sph. cristatum numbers
in bottom land.

Oec. common in weeds.

Phib. very scarce in
bottom.

$$13614 + 162 = 13776$$

Dallas Region

- 1 *Stenobothrus*
- 2 *Stagmomantis*
- 3 *Chrysomelid*
Diaper
- 4 *Orthoptera* " *Tamias*
- 5 *Syrph admirabilis*
- 6 " *acuticornis*
- 7 *Membrana bivittata*
- 8 " *neomex*
- 9 *Opis*
- 10 *Scopula*
- 11 *Arphia pseudoniet*
- 12 " *carinata*
- 13 " *luteola*
- 14 *Hippiscus nigrosus*
- 15 *Metatrypa thomasi*
- 16 " *capitata?*
- 17 *Psolus texana*
- 18 *Agrostis deorum*
- 19 *Prunella rupestris*
- 20 " *brunnea gr.*
- 21 *Hadrot 3-fasc*
- 22 *Spharagis aequalis*
- 23 " *cristata*

- 24 Hesp *viridis*
 25 " *pratensis*
 26 " *speciosus*
 27 ~~Campyla~~ *veg??*
 28 *Melanop* *differential*
 29 " *atlantus*
 30 " *glaucifus*
 31 " *sericeus* *black*
 32 " *packardii*
 33 " *lakinius*
 34 " *scudderii* *tex*
 35 *Hypochlora* *alba*
 36 *Melanoplus* *robustus*
 37 *Dactyloctenium* *v. small*
 38 *Stenator* *stevensii*
 39 " *plum* *eastern*
 40 ~~Conocephalus~~ *strictus*
 41 ~~Neocoenoc~~ *crepilans*
 42 ~~Mesochloa~~ *abortiva*
 43 ~~Rhombote~~ *4-manus*
 44 *Oec* *4-punct*
 45 " *yellow* *sun*
 46 " *batemani*

- 47 *Schistocerca americana*
 48 " *lineolata* (?)
 49 *Cortopha veridijasi*
 50 *Dissost carolina*
 51 " *longipennis*
 52 *Leucrotropis cubana*?
 53 *Antraxa gracilipes*
 54 *Psyllophora* +
 55 *Spharagmus bolli*
 56 *Suprus wheeleri*
 57 ~~*Wignya*~~ *utleri*
 58 *Euclyptus texensis*
 59 *Arphia sulphurea*?
 60 *Scudderella texensis*
 61 *Tomonotus agilis*
 62 *Archelimum clunys* sp.
 63 *Hippiscus corallipes*
 64 *Amblycorypha utleri*?
 65 ~~*Stagnonantis lineolata*~~
 66 ~~*Mesodeloa abducta*~~
 67 *Conocephalus fasciatus*
 68 *Sch. dominica*
 69 *Euclyptus costalis*
 70 *Oxyptilum squamosum*
 71 *Melanocephalus plebejus*

70 ~~Cyrtolalla~~ small

71 " larger

72 *Dick viridis*

Handwritten text at the top of the page, possibly including a name and a date, with a large diagonal scribble over it.



74/ Cisco, Eastland Co. Tex.
Sept. 21, 1912. 1450'-1550'

meadow of high green
grass dotted along
stream w thick clumps
of post oak - Hills
very along bare spots
covered w short yellow
grass next nearby post
oak with small areas
of thick low bushes -

- 1 on hill slope in
rocks & short grass
- 2 on trunk of mesquite
striking protect result.
- 3 from bunches of coarse
reddish grass on edge
of oak woods (kept)
much worse & others
D. tarwood.
- 4 all in terminal
twigs of mesquite
pair of cotes in
terminal leaves

10/10

5 common in meadow
along stream

6 very common same
and abdt on hill
among low bushes also

7 common along stream
& in meadow

8 same locally in
greater nos - Not
nearly as active as 7
and no much more
closely allied grasses

9 very few in meadow

10 2 same

11 & 12 1 of each same

12 - 2 on edge of oak
woods in open spaces

14 large colony as 12 and
also scattered over
meadow - There the

2 orange w 7 along str

15 common in open
everywhere but esp

on hill slopes

16 ~~very~~ common on

hill slopes.

17 on in grass on
edge of oak woods

18 common in meadow

19 very few on hill

20 common about
rock stream, pts of
hill

21 colonies in mead

22 few same

23 fairly common same

24 common same

25 very scarce in grass

on edge of oak woods

26 common in mead,

some feeding on sage

27 usual in meadow

not scarce in well kept

on edge of mead

on edge of mead

on edge of mead

- 28 in large nos along
etc and in clumps
of oaks
- 29 occurs in mead
- 30 common in oaks
both in mead & on hill
- 31 ^{very} common in mead
- 32 ^{common} same
- 33 very scarce same
- 34 scarce about oaks
in mead & on hill
- 35 fairly apt in
small patches of ^{high} grass
- 36 common in oaks
- 37 very scarce on
bare patches near
edge of meadow
- 38 $1\frac{1}{2}$ in high grass
on edge of etc
- 39 all seen taken
in high grass in mead
- 40 ~~very~~ scarce same
- 41 $1\frac{1}{2}$ same

42 in short grasses
on edge of oak woods
no common O ads.

43 ~~usual~~ in short
grasses ~~sp~~ on hillside

44 common in grasses
& weeds along str

45 —————

46 no center from
oak woods on edge
of oak woods

47 2 seen on edge
of woods in meadow

48 this is the smaller
green yellow line marked
Jeh - 13' deep not taken
in oaks up stream

49 a very few ^{very small} along in road

50 usual but much fewer
up stream -

51 in meadow & woods

52 common on bare soil
esp along stream

Cico Sept 22

- 48 These may not be
the same as the one
seen yesterday - it was
the typical small green
yellow lined sp. - These
were taken in similar
site on oaks but are
all yellowish.
- 50 ^{fairly} common along roads
- 53 in grasses on
stream bank thru
meadow beaten
- 54 ~~same~~
- 55 1 only seen & taken
in oaks
- 56 very scarce in
large open space
in oaks covered w
short yellow grass
- 57 ~~beaten~~ for oaks
- 58 1 taken in meadow
- 11 quite a small
colony on edge of oaks

14 The reddish orange
winged specimens
may be diff sp. - They
were certainly more
active & flew farther
than almost any yellow
winged vidua.

37 numerous colony in
short yellow grasses
about low clusters of
oak shoots - very
occasional elsewhere

38 & 39 both occasional
about low clusters of
oak shoots in field
& on edge of woods

39 much more numerous
than 38 and could be
heard singing etc faint

38 39 39

63 12 only in grass beside road

14178 + 202 = 14380

- 23 fairly common on
bare soil in lowlands
etc in cotton patches
27 not ~~seen~~ in Ciss plant
28 fairly abdt in cotton
29 common as 3 & widely
dist in cotton etc
30 occul among oaks
31 occul as 3 & widely
dist
32 very scarce as 3
34 scarce about oak only
on ground among a shrubs
36 1 ♀ seen not taken " "
42 no com in short
dry yellow grass areas
44 com in weeds
47 occul among weeds
& about oak groves
48 a few in cotton only
50 fairly com along roads
52 common as 23
53 1 as 3

54 as 3 ~~much~~ work to
get small series

58 occur as 3

59 17 " "

60 fairly common in woods
esp. about oak groves
& on oaks

61 fairly common locally

62 occur in patches
of high grass in cotton

63 one up left in oak

64 in low woods part as 3

$$14380 + 197 = 14577$$

76 Temple, Breal Co. Texas

Sept. 24, 1912 V. Nigh

wind greatly muddering -
Rolling black earth country
almost entirely under cultivation.
In grass areas E. costalis
common, E. texensis
quite numerous same
where could exposed black
earth was to be found

S. americanus ocypus
m. differ in weeds fairly ^{common}
m. attenuatus ubiquitous ^{common}

T. citreus common in bare places

A. longip 1 on prairie
Hipp common in colonies
in grassy areas

Carex ~~occasional~~ in weeds
Lyphid in grassy areas

Lyphid common areas of
low grass S. adum
common in grassy areas
the by met occasional "

Against same, only 1.
Misto same scarce.

$$14577 + 53 = 14630$$

~~Sund. d. r. r. there.~~

P. M. Along the bordered
stream - at water edge
Settling occid & 1 Settling
1 Settling pink head scattered
from heavy grass
along stream. Settling
there also 1 up in low
bush 4 or 5 ft from ground.
Syrb. fuscos - about 6
seen in weedy spots
along edge of woods, all
in one field - nowhere else
M. phibeyi occid in
tall grass "open" area
in field well up
as M. fuscos

$$14630 + 79 = 14709$$

77 Dallas Texas, Sept-25-
weather downright cold.

In field of tall grass on
edge of woods - Mel
sh w occul - Campoplex
r scar S. acule occul
S. admir comm Murfa 1
Cyclopt squam 1 ♀ not taken

In large area overgr
w short grass & scatt
over w occul weeds
Alph 2 sp? very comm
E. costalis comm in colonies
E. texensis rather scarce
Mestob comm in colonies
M. atl occul. M. diff
in high grass. 2 Sudd
in bushes in woods
1 S cristat on edge
of woods

♀ imm to have solid band
& males spot

14709 + 249 = 64958

Dallas Sept 26 -
1 Arctostaphylos in short

grasses between oaks -
Mesochorus no (1 ♂ ad) common
there - Among oaks in
savanna 1 Sph. lucida
in low clumps of
oak sprouts 2 S. laevis
In meadowy grasses no
Chrysopygia

2 of Micropodius
nearby in field of
high grass - M. novus
also in grasses among
oaks - Chort there

Vireo 2 seen & taken
T. citreus & common in
roads - Spizella common
in some places in
woods & oaks &
mesquite - P.M.

Mesquite area
2 Diapason in vireo

on upper frays
of mesquite.

Diaper ocul ~~both~~
in grasses among
oaks and 2 in field
of high grass. ~~There~~
common Decant also

$$14958 + 177 = 15135$$

78 / Saganmore Hill, Tarrant
Co. Texas Sept 27, 1912. 650
In area of pine oaks
w undergrowth shrub oak sprouts,
smilax & some Cow bushes,
occasional patches of grass
some yellow-flowered
weed & Campy weed -
Campy not scarce
in latter - Under
of oak woods M. glaucus
rather scarce M. subditi
occasional - nearly common
but widely distr. A.
carinata occasional in
open spots - 2 S. bolli
same - 1 S. americana
seen not taken -
In field on edge of
woods one colony of
Chost - 1 vic there
citrus common in

roads - in low grass
areas in open Open
scarce, a few Pyralid
1 X struck on, X grass
fairly common & etc.
Hipp not scarce there
2 w orange wings - as
usual much more
active than the yellow.
Scudd ^{fair} common in
roads -

$$15135 + 180 = 15315$$

End of 1912 trip

~~wood - in /~~
~~at about 10, X~~
~~trip not occur there~~
~~to average 1000 - 20~~
~~world's largest~~
~~where there the yellow~~
~~Joseph~~
~~no.~~

10182 + 180 = 10362

Back of 1912 trip

