

U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

Form B-50

FIELD DIARY

Mr. E. A. Goldman

August 11 to
(Date)

Period, Sept. 9, 1924 to

Arizona (Kaibab)

(Trip with investigative committee.)

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21-11

10

1500

Aug. 11, 1924

Left Washington D.C. for
Maryvale, Utah en route to
Herbert National Forest to join
Investigative Committee which
is to study conditions affecting
deer.

Aug. 12-14. En route to

Maryvale. Met Hayward butting
who represents Boone and
Crockett Club on train on the
13th and we travelled together
to Maryvale where we arrived
the evening of the 14th. At
Maryvale we found S.B. Toke
and several other Forest officers
awaiting us also J. Gilbert
Pearson who represents the
Nat. Assoc. of Audubon Societies
and the National Parks
Assoc. Mr. Tomlinson who

represent the stock interests
joined us on the train.

Aug. 15. Bryce Canyon, ^{Utah}
Made trip to Bryce Canyon
today by auto.

balloon. Several seen along
rim of Bryce Canyon.

Aug. 16, Bryce Canyon ^{Big Spiz.}
Left Bryce Canyon 8.15 A.M.
and travelled via Panguitch
and Hatch to Big Spiz, Ariz.
Sage Hen. Saw 16 a few
miles out from Bryce Canyon
on road to Panguitch.

Aug. 17, Big Springs
to Big Saddle. 25 miles. ✓
Left Big Spgs 10.45 am and
arrived Big Saddle 7.50 P.M.

Route was along road for
a few miles then down toward
Little Sorrells canyon into upper
edge of deer winter range.

Deer, was surprised to find
deer in large numbers are
ranging in lower part of pine
belt and are taking most of the
leaves off Q. gambelii as high
as they can conveniently reach.
Further out on edge of winter
range a few deer occur but
leaves on oaks extend to
ground showing there is
not intensive use by deer.
10 deer were seen in one
bunch among the oaks -

avg. 77 com.

mainly does and young den.
In pine timber den are
taking many of the leaves
from Robinia and patches
of Gambel oak. In parts
of winter range (upper part)
Cowanina has not recovered
to extent formerly noted by
us. Dr. Pearson's count ^{second} 113

Sciurus harrisi. Three were
seen - two in one place
and signs were noted of
several others. ~~Two sharp~~
#

Accipiter velox. Two seen
one of these at Big Spgs
and the other near lower
edge of pines.

Buteo b. calurus. One in
a pine near head of Little
Sawtooth Canyon.

Aug. 28. Paint
Big Saddle to new Saddle and
return to Big Saddle. —
about 12 miles

Sciurus karibensis. Dr. Pearson
was the first to see a squirrel
within a few yards of our
camp.

Made trip through edge
of yellow pines and down
to part of winter con-
centration area.

Ferocis. Found oaks
generally chawed up in
lower edge of yellow
pine belt, also serviceberry.
Especially lower edge of
oaks has browsed and
den are evidences
ranging in greatest
numbers a little higher.

avg. 18 cm.

Juniperus hemisphaerica is
extensively on winter
range. *Leucocarpus* does
not appear to have
recovered from winter
grazing to extent noted
2 years ago. and
winter browsing is
evidently very des-
tructive. In some
places in lower edge
of oaks low growing
clumps apparently differ
in palatability some
being little grazed.

Dec. count per day
about 103. Beautiful
among oaks and a few
oaks well out on
winter range.

Aug. 19.

Big Saddle to vicinity of
Dry Park.

Off about 11 A.M. Made
trip via Parismevampello,
and Draping Asp. Spgs. thru
pine forest.

Forage. Generally
closely utilized by deer.
Browsing of white fir
noted in many places.

Deer. Count about 50.
Very few bucks and not
many fawns. Rather
stunt! Most of the deer
are fawn colored - a
few more reddish.

Sciurus kaibab. Two seen
and signs noted in several
other places - tips of pine
frankly cut.

Aug. 19 con.

Accipiter velox, One seen
near Parshwampitts Spz.

Turco p. loss. Common

Dendroica aud. Near
Parshwampitts Spz.

Cinclus, all along way
at intervals

Colaptes, Several seen
near Quaking Asp Spz.

Aug 20.

Dry Park to rim Shinnos
Amphitheater and return.
off at 9 A.M.; back at 4 P.M. - Dist
about 12 miles.
Dutro b. cal. One near Dry
Park.

Spizus pinus. Several small
flocks seen near Dry Park
Gate.

Seiurus parula. Several seen
in several places near Dry
Park Gate.

Seiurus moz. Several seen near
Dry Park Gate in spruce.

Torax. Near ^{and in the} pine, oaks
cherry, also Robinia and
much extensive browsing of
Abies concolor. Some browsing
noted of Abies laricina
and Pseudotsuga. Patches of
Ceanothus fuddleii practically

Aug. 20 con.

wiped out, the stems killed
down to the ground where
a very short feeble growth
only remained.

Deer, count on trip was
36 by Dr. Pearson, comparatively
small number seen in mixed
habitat composing typical
summer range.

Buteo f. calurus. One seen ^{near}
on rim of canyon bordering
Thomomys amphitetrax =
aeoloides velox. One seen
near Quaking Asp. R.F.

Abies lasiocarpa. This is rather
common along some of the
shaded canyons forming the
heads of Quaking Asp. Canyon
Canis. One seen on the
road from Dry Lake to
Quaking Asp. Canyon,

Aug 21

Dry Park to V.P. Park

Left at 9 A.M. and spent considerable time looking for a wounded deer arriving V.P. about 3 P.M. - Drove trees about 7 mi. by road and several additional through forest.

Forage. Gradually utilized all along way.

Deer. At V.P. about 300 head come out in evening. Some bucks are getting fair pelage and look dark and are in better shape than some seen before.

May 22

Off at 10 AM

Ben comb. 10

Bucks

?

Doz

?

Red tail ||

White tail ||

Deer N.P. to the

||||| ||||| ||||| ||||| ||||| |||||

||||| ||||| ||||| ||||| ||||| ||||| |||||

1

Deer

||||| ||||| ||||| ||||| ||||| ||||| |||||

||||| ||||| ||||| 44 - 46 - 13
29

160 - 126 - 108 - 128

166 - 194

44
46
13
160
126
108
597

128
166
194
488
597
1085

1085
40
1075

Aug. 22 con.

Made a trip by auto to north end of Game Preserve, to area a few miles south of Jacob Lake where less general utilization of forage was noted. We returned by highway and went on south to Wylie Way camp and then back to north end of U. P. Park making deer count.

Forage. Less utilized on north end of forest, and near rim of canyon.

Sciurus harrisi. One seen and signs of others noted.

Deer. A large buck in dark phase changing to fall, was shot by Burnham and skinned and stomach contents saved.

Aug. 23. (Sat.)

D. T. Park to Greenland Point
and return by auto.

Made trip via Park Service
R.S. to end of Greenland Point
at Cape Royal.

Forage. Less fuely browse
was seen on Thompson than
on west side of Reserve. At
Greenland Point browse was
much less still and toward
the end aspens and browse
in general was in some
places almost unutilized to
all appearances. Aspen leaves
here extended to the ground
in the normal way. Lack
of general utilization of this
area is evidently due largely
to the fact that it is
isolated and separated from

Aug. 23 em.

the main plateau by a narrow neck only about $\frac{1}{2}$ a mile across. Not far from the neck considerable browsing of Sorbus scopulina was noted in one locality. This species is however not abundant occurrence on the Game Preserve. Near Cape Royal lowland sage brush had been heavily browsed apparently by elk several times in winter.

Aug. 24.

V.P. Park to east rim of Plateau
and return to V.P.

Made trip partly by auto and
partly ~~by~~ on horseback to
east rim near North Canyon

Forage. In this section not so
closely grazed by deer as in many
other places.

Deer. Comp. small number seen.

Aug. 25.

Meeting at V. P. Park occupied
most of day.

Aug. 26,

V.T. to Whitt Way, Camp, via
Sudline Point and Fairview
Point,

Off at 9 a.m. Made trip by
auto to Sudline Point and
thence back to ^{main} road and
across to Fairview Point.

Mt. Jun. Bob Vaughn says has killed
7 since Oct. of last year.

Aug. 27.

Wylie Way camp to Phantom
Ranch.

Made trip down Bright Angel
Trail, arriving Phantom Ranch
in evening.

Deer. Numerous tracks seen
along trail down to below
Roaring Spring. A few are
reported in the canyon to
within a short distance of the
upper end of the box of Bright
Angel Creek.

Faeces, very completely utilized
by deer to point where we
turned down from rim beyond
which on the steep slopes
it is comparatively little
utilized although tracks,
quite fresh, of deer are
numerous.

Aug. 27 con.

Beaver, a few small ~~+~~
cottonwoods that had been
freshly cut by Beavers were
seen ~~in~~ both above and
below Roaring Springs.

Aug. 28

Phantom Ranch to El Tovar,

In the morning climbed
out from Phantom Ranch
top of Tonto Plateau east of
Phantom Ranch. Found the
Plateau comparatively little
eroded as contrasted with
Turquoise-grazed south side.

Deer. Tracks of one seen on
Tonto Plateau.

Forage. Excellent forage
was found on Tonto Plateau.

~~Returned El Tovar~~ climbed
on out to El Tovar in
afternoon.

Aug. 29.
El Tovar, Grand Canyon,
Ariz.

Spent day on trip along
rim with Mr. Mather,
Mr. Burnham, Mr. Luttinger
and Mr. Byron Hunt of
Los Angeles.

In afternoon a trip was
made out to a point
overlooking the Little
Colorado Canyon. From
this point we could
~~see~~ ^{see} ~~down~~ the rim of
the canyon of the Little
Colorado at many points
and the ^{lower} course of the
canyon could be followed
for miles. Looking across
we could see Echo Bluffs
and other features of the

Aug. 29 am,
Painted Desert.

Forage. Near Grand View
forage for stock is very
short. Oaks and shrubby
vegetation is trampled
up by cattle as high as
they can reach. Cattle
in this general region
are reported to be dying
of starvation and of the
thrush owing to the
continued dry season.

Aug. 30. Hermit
Creek Camp, Grand Canyon,
Ariz.

Made a trip from El
Tovar to Hermit Creek
Camp via Hermit Trail
to determine conditions
likely to affect *aulospora*
to be planted there.

Arrived at Hermit Creek
Camp about 5.30 P.M.

Aug. 31, El Tovar.
Returned in afternoon from
Hermit Creek Camp to El
Tovar. Spent morning in
examining proposed
Antelope range near
Hermit Creek Camp.

Antelope range, an area
about $3/4$ of a mile in
length and varying from
 $1/4$ to $1/2$ a mile in width,
mostly rather rough the
surface in most places
sloping toward the canyon
and traversed by a number
of parallel gullies strewn
with boulders.

Forage, considerable
forage grows in various
places, especially along
the gullies & the areas

Aug. 31 con.
Boulders. Some layers
of Porto sandstone produce
on decomposition ~~rich~~
richer soil than others.
Surface everywhere very
friable.

Sept. 1 (Labor Day)
Spent day at Grand Canyon
writing letters mainly.
Visited But Langum and
his family.

Sept 2. Al Toovar to
grassy section beyond Cedar
Mountain not far from
Cape Solitude and return.

Made a trip with Chief
Ranger and Ranger Phillips
east to point at lower
level beyond Desert View,
overlooking a sloping
area - sloping ^{steeply} from
rim of Grand Canyon
toward Little Colorado
Riv. This is a well
grassed area where
however water is scarce
or entirely lacking which
would make an excellent
antelope range. Possibly
water could be developed.
W.P. Taylor met me in
evening.

Sept. 3. Grand Canyon
to Ash Fork.

Left G.C. with W.P. Taylor,
and we first visited
experimental plots in
Leominster Wash where some
changes are to be made
in arrangements, of areas.

In afternoon we continued
to Ash Fork where we
stopped for the night. En
route the plots a few miles
north of Williams were
visited. These were
found to be in excellent
condition.

Sept. 4, Ash Fork to
Seligman and thence to
Flagstaff.

Visited Seligman plots
where some logs were
found in area being
rehabilitated as a total
protection area. Plans
covering this were made
with Taylor and we returned
in afternoon, as far as
~~the~~ Williams and continued
east to Flagstaff.

Sept. 5. Flagstaff to
Southwestern Exp. Sta. in
Port Valley and return.

Made trip with Taylor and
Gilchrist to Exp. Sta. where
we spent the day. Investigations
are going satisfactorily here.

Porcupines. A single animal
kept in a yard is
evidently very destructive
to yellow pine. Two are
so kept and both feed
upon pines and upon
herbaceous vegetation
within reach. Both are
evidently quite destructive.

Squirrels. Five adults have
been taken by Taylor and
kept for observation in
confinement. Apparently des-
tructive just now to young
pines.

Sept. 5 con.

In evening was the guest
of a group of Flagstaff
sportsmen with whom I
discussed game conditions
in Arizona.

Sept. 6-9

En route Flagstaff, Ariz. to
Washington, D.C.

Left Flagstaff 6:35 a.m.
Sept. 6 and arrived Wash., D.C.
9 a.m. Sept. 9.

Harvey Robinson Water
G. L. Harvey
105, S Dearborn St.
#2 Chicago

J. Ross Eakin
Sept. 9. C. 7 P.
2750 ft. of snow
all told - 1250 ft. more
west of Summit.

Ernest Miller

Eldridge, Mont, Has
ranch 12 or 15 miles
away, Benham says
see him in re elk in
which he is much
interested, Has deer ranch.

~~Mr. Chipman~~
~~12000 ft. alt.~~

C. N. Green, El Capitan
Ariz, Has 'cattle ranch'
and is Dep. Game warden.
Told me about small
deer near Klondyke.

128, 21 d, 57
~~37 - 5 d,~~
~~27 - 2 d.~~
~~87 - 6 d~~
~~47 - 4 d~~
~~27. - 3 d,~~
~~97. - 10 d~~
~~147. - 4 d~~
~~47 - 3 d~~
~~57 - 8 d~~
~~47 - 9 d~~
~~47 - 1 d~~
~~177 - 2 d~~

~~627, 67 d~~
 57
 177 - 41 d

 98 | 790 | 80.5 | 797 - 98 d
 784

 606

Aulicope in Pappinai
Valley, Fumli Forest,
R. C. Thomas, State
Game Warden,
may have written
R.S. Melzer
People on ranch above
Sulphur Crk. R.S.

Aulicope
Clyde Cofer 50 miles
S. of Kingman has a
cattle ranch with 40 or
50 aulicope bred up under
protection from a ranch
smaller number.

Aulicope - a few said to
range on Francis Crk. 65 mi
S. of Kingman.

leaf solitude -

Slopes from rim of G.C.
toward Little Colorado. Upper
part of slope rough limestone
along many washes in which
traps could be made. Washes
are rather short and open
on a wide wavy undulating
plain becoming almost
level toward the north
end. Higher slopes covered
with a moderate growth
of juniper and juniper.
Lower part of area covered
with considerable sage
brush. Whole area well-
grazed. Considerable
alfalfa in places
along washes. Grass largely
grama. Appurmount about 1000
feet from lower edge. Snow
does not lie long in winter.

Coconino Plot

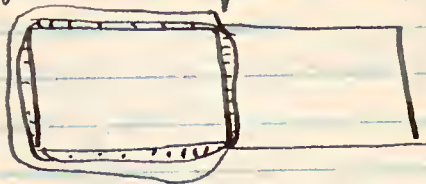
Sept. 3, 1924

One plot previously assumed
to be total prohibition proves
not to be totally fenced -
~~the~~ ~~total~~ ~~prohibition~~ enclosure has
foot ^{10 in wide} ~~under~~ galvanized iron
strip inside, about 14
live holes cumbered in
enclosure. Not a normal
infestation of dogs outside,
counted roughly 135 or 46
holes outside.

Plans made to turn P.P.
enclosure into total prohibition
plot reversing galvanized
iron,

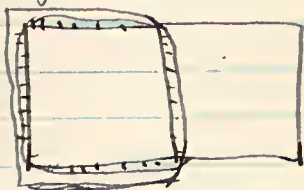
Wellington Plots.

In good condition - difference bet. total plot. & rodent grazed areas very marked. One effect shown is that cattle grazing around & eliminated *Gutierrezia*. Potato plot. now surrounded by wire netting overhead to prevent dogs from climbing in and this protected by electric fence. This



Selkwan plots.

Dogs numerous in general neighborhood. Perhaps 25 live holes in rodent infested area, and a few still left in total plot. area which had been invaded before fence was fixed. We found several places where dogs had gotten under and could pass in or out under wire. Apparently dogs inside had found their way out.



6 wire fence

outside 4 wire fence
Perovone making dense growth in
plot. plot. 22 several grass
slight effects of perovone